(FILE 'HOME' ENTERED AT 14:20:40 ON 18 APR 2001)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 14:20:49 ON 18 APR 2001

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L1        312257 S CELLULOSE
L2       2686481 S CANCER OR TUMOR OR TUMOUR OR CARCINOGENESIS
L3          5482 S L1 AND L2
L4           875 S NON-FERMENTABLE
L5             9 S L3 AND L4
L6             3 DUP REM L5 (6 DUPLICATES REMOVED)
L7         14235 S METHYLCELLULOSE
L8          3065 S ETHYLCELLULOSE
L9          8858 S CARBOXYMETHYLCELLULOSE
L10         1790 S HYDROXYPROPYL-METHYLCELLULOSE
L11           46 S L3 AND L7
L12           25 S L3 AND L8
L13           44 S L3 AND L9
L14            6 S L3 AND L10
L15          107 S L11 OR L12 OR L13 OR L14
L16           87 DUP REM L15 (20 DUPLICATES REMOVED)
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L16 ANSWER 1 OF 87 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:666590 CAPLUS
DOCUMENT NUMBER: 133:242678
TITLE: Angiogenesis inhibition with pharmaceutical containing reaction products of hyaluronic acid, CM-***cellulose*** and carbodiimide
INVENTOR(S): Moulton, Steven
PATENT ASSIGNEE(S): Trustees of Boston University, USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000054762	A2	20000921	WO 2000-US6819	20000315
WO 2000054762	A3	20010308		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-124703 19990315

AB Angiogenesis is inhibited by the local administration of a pharmaceutical prepn. formed from the reaction of hyaluronic acid, CM- ***cellulose*** and a carbodiimide. The prepn., which can be in the form of a film or a gel, is advantageously applied directly to the site of a ***tumor*** , such as a cancerous ***tumor*** , used in conjunction with other chemotherapeutic techniques, or used to treat a chronic inflammatory condition, such as rheumatoid arthritis, endometriosis, arteriosclerosis, intimal hyperplasia, proliferative retinopathy, and the like. Seprafilm inhibited the growth of vessels and the formation of adhesions in mice.

L16 ANSWER 2 OF 87 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:699078 CAPLUS
DOCUMENT NUMBER: 133:280574
TITLE: Methods of treating inflammatory bowel diseases by administering IL-11
INVENTOR(S): Warne, Nick W.; Bedrosian, Camille L.; Keith, James C., Jr.; Schwertschlag, Ullrich S.; Schendel, Paul F.
PATENT ASSIGNEE(S): Genetics Institute, USA
SOURCE: U.S., 10 pp., Cont.-in-part of U.S. 5,948,402.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6126933	A	20001003	US 1998-179026	19981026
US 5679339	A	19971021	US 1995-495724	19950627
WO 9701353	A1	19970116	WO 1996-US8059	19960530
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5948402	A	19990907	US 1997-892407	19970715
PRIORITY APPLN. INFO.:			US 1995-495724	19950627
			WO 1996-US8059	19960530
			US 1997-892407	19970715

AB Provided by the present invention are topical formulations of Interleukin-11 and methods for treating a variety of disorders, including inflammatory bowel diseases (e.g., Crohn's disease, ulcerative colitis, indeterminate colitis, and infectious colitis), mucositis (e.g., oral mucositis, gastrointestinal mucositis, nasal mucositis, and proctitis), necrotizing enterocolitis, inflammatory skin disorders (e.g., psoriasis, atopic dermatitis, and contact hypersensitivity), aphthous ulcers, pharyngitis, esophagitis, peptic ulcers, gingivitis, periodontitis, and ocular diseases (e.g., conjunctivitis, retinitis, and uveitis). The topical administration of IL-11 is preferable to systemic injections, esp. in concurrent systemic administration with chemotherapeutic or radiotherapeutic agent for ***cancer*** .

REFERENCE COUNT: 42
REFERENCE(S):
(1) Anon; EP 0158487 A2 1985 CAPLUS
(2) Anon; WO 9107495 A1 1991 CAPLUS
(3) Anon; EP 0578823 A1 1994 CAPLUS
(4) Anon; WO 9405318 A1 1994 CAPLUS
(5) Anon; WO 9524650 A2 1995 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 3 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:755211 CAPLUS
DOCUMENT NUMBER: 133:340208
TITLE: Novel compositions useful for delivering anti-inflammatory agents into a cell
INVENTOR(S): Unger, Evan C.; McCreery, Thomas; Sadewasser, David A.
PATENT ASSIGNEE(S): ImaRx Pharmaceutical Corp., USA
SOURCE: Eur. Pat. Appl., 78 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1046394	A2	20001025	EP 2000-303249	20000418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:			US 1999-294623	19990419

AB The present invention is directed, inter alia, to compns. and their use for delivering compds. into a cell. In a preferred embodiment, the compns. comprise, in combination with the compd. to be delivered, an org. halide, a targeting ligand, and a nuclear localization sequence, optionally in the presence of a carrier. Ultrasound may be applied, if desired. The compns. are particularly suitable for the treatment of inflammatory diseases.

L16 ANSWER 4 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:265982 CAPLUS
DOCUMENT NUMBER: 130:316630
TITLE: Medicinal carrier particle for tissue-specific application
INVENTOR(S): Mueller, Rainer; Lueck, Martin; Kreuter, Joerg
PATENT ASSIGNEE(S): DDS Drug Delivery Service Gesellschaft zur Foerderung der Forschung in pharmazeutischer Technologie und Biopharmazie m.b.H., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19745950	A1	19990422	DE 1997-19745950	19971017
WO 9920256	A2	19990429	WO 1998-EP6429	19981013
WO 9920256	A3	19990819		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9912272	A1	19990510	AU 1999-12272	19981013
EP 1023052	A2	20000802	EP 1998-955425	19981013

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: DE 1997-19745950 19971017
WO 1998-EP6429 19981013

AB Drug carrier particles are provided for delivery of drugs across the blood-brain barrier to the central nervous system for treatment of central nervous disorders. The particles, in drug-loaded or drug-free form, bear on their surface .gtoreq.1 covalently bound or adsorbed recognition protein (e.g. an apolipoprotein) for receptors in the brain or blood-brain barrier, or the particle surface is modified (e.g. with an ethoxylated surfactant) so that a recognition protein is bound on contact with the particle. Thus, poly(Bu cyanoacrylate) nanoparticles loaded with the analgesic, dalargin, were surface modified with Tween 80 and incubated with apolipoprotein E. Administration of these nanoparticles i.v. to mice produced an analgesic effect, as shown in the tail-flick test.

L16 ANSWER 5 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 1999037217 EMBASE

TITLE: Effect of Tween-80 on cell killing by etoposide in human lung adenocarcinoma cells.

AUTHOR: Tsujino I.; Yamazaki T.; Masutani M.; Sawada U.; Horie T.

CORPORATE SOURCE: I. Tsujino, First Dept. of Internal Medicine, Nihon University School of Medicine, 30-1 Oyaguchi Kami-machi Itabashi-ku, Tokyo 173, Japan

SOURCE: Cancer Chemotherapy and Pharmacology, (1999) 43/1 (29-34). Refs: 21
ISSN: 0344-5704 CODEN: CCPHDZ

COUNTRY: Germany

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis
016 Cancer
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Purpose: The non-ionic detergent Tween-80, a surface-active agent, has been shown to modulate the cytocidal effect of certain antitumor agents. In the present study, we sought to determine whether or not Tween-80 could enhance the antitumor effect of etoposide (VP16) in human lung ***cancer*** cells in vitro. Methods: Survival fractions were measured by growth inhibition assays of PC14, H69, KB, and Pc14/CDDP (the corresponding cisplatin- resistant subline of Pc14) cells. An in vitro clonogenic assay of PC14 and PC14/CDDP cells was undertaken after incubation for 10-12 days in RPMI-1640 medium with 20% fetal calf serum and 1.72% methyl ***cellulose*** , plus continuous exposure to VP16 with Tween-80. We also investigated the direct toxicity of Tween-80 to PC14 and PC14/CDDP cells using a clonal assay. The intracellular accumulation of VP16 was further analyzed using [3H]VP16 in PC14, PC14/CDDP, A549, KB and H69 cells, and compared with that of daunorubicin (DNR), a hydrophilic anticancer agent, using [3H]DNR in PC14, A549 and KB cells. Results: It was found that PC14/CDDP had collateral sensitivity to VP16 and Tween-80 markedly enhanced the killing effect of VP16 not only of PC14 cells but also of PC14/CDDP cells while exerting little cytotoxic effect. Moreover, Tween-80 increased the intracellular accumulation of VP16 in PC14, PC14/CDDP and A549 cells, and not in KB and H69 cells. Tween-80 did not increase the intracellular DNR levels in PC14, A549 and KB cells. Conclusions: Tween-80 was shown to potentiate the cytotoxicity of VP16 against several human lung adenocarcinoma cells by increasing the accumulation of VP16 in vitro. Tween- 80-mediated sensitization of lung adenocarcinoma cells to VP16 is considered to be related to both the

characteristics of the cell membrane in adenocarcinoma cells and the lipotropic properties of VP 16. These results suggest that this combination might have the potential to improve the therapeutic index of VP16 in human lung adenocarcinoma.

L16 ANSWER 6 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998384933 EMBASE
TITLE: Experimental and clinical study on intraarterial embolization with cisplatin microspheres in treatment of malignant ***tumor*** .
AUTHOR: Guokun A.; Yijun Z.; Guoqing L.
CORPORATE SOURCE: A. Guokun, 309 Hospital of PLA, Beijing, China
SOURCE: Chinese Journal of Clinical Oncology, (1998) 25/10 (706-710).
Refs: 4
ISSN: 1000-8179 CODEN: ZZLIEP
COUNTRY: China
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
037 Drug Literature Index
039 Pharmacy
LANGUAGE: Chinese
SUMMARY LANGUAGE: English; Chinese
AB Purpose: Preparation of a slow-releasing anticancer agents in microspheres at embolization treatment for malignant tumors. Methods: Cisplatin and barium sulfate microspheres encased in ***ethylcellulose*** were prepared and its shape and releasing rate were determined. The embolization, releasing and toxic effects were observed in animal experiment. Eight cases of leukemia were treated clinically with embolization of cisplatin microspheres. Results: The CDDP microspheres produced were essentially spherical in shape with a diameter of 200.+-.50 .mu.m and good releasing effect. Diffuse hepatic and renal necrosis were observed in animal experiment after infusion of CDDP microspheres. Cisplatin released steadily from the spheres with minimal systemic toxicity. Satisfactory clinical effect was achieved. Conclusion: CDDP microsphere embolization releases anticancer agents slowly with quite strong anticancer effect but minimal toxicity. Thus, it is an ideal chemotherapeutic embolizing preparation in the treatment of tumors.

L16 ANSWER 7 OF 87 MEDLINE
ACCESSION NUMBER: 1998210522 MEDLINE
DOCUMENT NUMBER: 98210522
TITLE: Design and application of oral sustained-release anticancer drug--a new oral dosage form of cisplatin.
AUTHOR: Nakagawa T; Kawamura T; Matsumura Y; Yoshikawa Y; Takada K; Ike O; Wada H; Hitomi S
CORPORATE SOURCE: Department of Pharmaceutics and Pharmacokinetics, Kyoto Pharmaceutical University.
SOURCE: NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE, (1998 Mar) 56 (3) 680-5. Ref: 16
Journal code: KIM. ISSN: 0047-1852.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: Japanese
ENTRY MONTH: 199808
ENTRY WEEK: 19980804
AB As compared to the conventional standard chemotherapy of solid ***cancer*** such as lung, biochemical modulation (BCM) therapy has been proven to have a good therapeutic efficiency. BCM therapy uses the low dose and low infusion rate of anti- ***cancer*** drug. To increase of the QOL of ***cancer*** patients, oral BCM therapy is needed. For this purpose, two kinds of new oral sustained-release cisplatin preparations were developed, micro-porous CDDP capsule made of ***ethylcellulose*** (EC) and CDDP-EC-stearic acid solid dispersion. After oral administrations of these preparations, serum CDDP levels were maintained over 0.2 microgram/ml for 24h. Experimental therapy using P815 ***tumor*** cells transplanted mice suggested the usefulness of CDDP solid dispersion preparation.

L16 ANSWER 8 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1998:182388 BIOSIS
DOCUMENT NUMBER: PREV199800182388
TITLE: Acute myeloid leukemia cells with low P-glycoprotein

expression and high Rhodamine 123 efflux capacity display high clonogenicity.
AUTHOR(S): Demur, C. (1); Muller, C.; Cassar, G.; Bousquet, C.; Laroche, M.; Laurent, G.
CORPORATE SOURCE: (1) Lab. d'Hematologie, Place du Dr Baylac, 31059 Toulouse France
SOURCE: Leukemia (Basingstoke), (Feb., 1998) Vol. 12, No. 2, pp. 192-199.
ISSN: 0887-6924.
DOCUMENT TYPE: Article
LANGUAGE: English
AB This study was designed to correlate the clonogenic capacity of acute myeloid leukemia (AML) cells with P-glycoprotein (P-gp) expression level and P-gp-mediated efflux capacity. Fifty AML cell samples were tested for P-gp expression using MRK16 monoclonal antibody and flow cytometry. Among them, heterogeneity of P-gp distribution in leukemic cells. For each ***cellulose*** in the presence of 5637 conditioned medium, and the of these 12 samples, leukemic cells which displayed the highest P-gp expression level (P-gp++) and P-gp- leukemic cells were sorted after MRK16 staining and seeded into ***methylcellulose*** for primary clonogenic assay. In each case, the number of CFU-L in the P-gp- fraction was significantly higher than that of the P-gp++ fraction ($P < 0.01$); the median number of CFU-L for 105 seeded cells being 147 (range 3-1855) and 495 (range 60-4100) for P-gp++ and P-gp- populations, respectively. Furthermore, in order to correlate clonogenic capacity and P-gp function, AML cells were stained with rhodamine 123 (Rh 123), washed and then sorted after 4 h incubation at 37degreeC in Rh 123-free media on the basis of their residual fluorescence intensity before plating. For each of six samples, we found that the number of CFU-L in the AML cell fraction which displayed the most efficient Rh 123 efflux capacity (Rh 123dull) was significantly higher compared to that of the AML cell fraction which displayed high residual fluorescence signal (Rh 123bright) ($P = 0.05$); the median number of CFU-L for 105 seeded cells being 1025 (range 250-2240) and 296 (range 11-838) for Rh 123dull and Rh 123bright populations, respectively. Altogether this study suggests that, for an individual AML cell population, the clonogenic fraction is preferentially recruited in AML cells which display low P-gp expression and high P-gp-mediated efflux capacity.

L16 ANSWER 9 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999197802 EMBASE
TITLE: Dietary fibers: An update.
AUTHOR: Paschou P.; Plessas S.T.
CORPORATE SOURCE: Prof. S.T. Plessas, Laboratory of Physiology, Department of Nursing, University of Athens, 4 Dilou str., 115 27 Athens, Greece
SOURCE: Epitheorese Klinikes Farmakologias kai Farmakokinetikes, (1998) 16/2 SUPPL. 1 (93-109).
Refs: 60
ISSN: 1011-6575 CODEN: EKFFEO
COUNTRY: Greece
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
048 Gastroenterology
LANGUAGE: Greek
SUMMARY LANGUAGE: English; Greek
AB In the domain of preventive nutrition, the effects of dietary fibers have been the subject of a host of investigations during the past years. Dietary fiber denotes all plant cell wall components, e.g., various amounts of fibrillar polysaccharide (mainly ***cellulose***), matrix polysaccharides (hemicellulose, pectins), lignins, cutin, waxes, some glycoproteins and are often accompanied by starch. It resists digestion by the secretions of the gastrointestinal tract and is degraded by the colonic microflora. Dietary fiber may act as a laxative by several mechanisms. It can bind water and ions in the colonic lumen, thereby softening the feces and increasing their bulk; it also can support the growth of colonic bacteria, thereby increasing fecal mass; some components of the fiber may be digested by colonic bacteria to metabolites that increase the osmotic activity of the luminal fluid; colonic fermentation of pectins and gums can decrease stool water by production of metabolites, such as short-chain fatty acids, directly influencing colonic mechanisms of fluid and electrolyte transport. Thus, fiber fraction is interesting for its effect on the colon physiology. A high-fiber diet is associated with reduced incidence of diverticulosis, ***cancer*** of the colon,

cardiovascular disease and diabetes mellitus. The more insoluble fibers such as ***cellulose*** and lignin found in wheat bran are beneficial with regard to colonic function, whereas the more soluble fibers found in legumes and fruit, e.g., gums and pectins, lower blood cholesterol, possibly by binding bile acids and dietary cholesterol. The soluble fibers also slow stomach emptying, and they delay and attenuate the postprandial rise in blood glucose, with consequent reduction in insulin secretion. This effect is beneficial to diabetics and to dieters because reduces the rebound fall in blood glucose that stimulates appetite. Foods differ widely in their type and content of dietary fiber. Foods rich in fiber include whole grain foods, bran flakes, fruits, leafy vegetables, root vegetables and their skins and prunes, which also contain the laxative substance diphenylisatin; bran contains over 40% dietary fiber. Grains and cereals contain mainly insoluble, poorly fermentable fibers; their ingestion will shorten intestinal transit time and increase stool bulk. Vegetables and fruits contain more water-soluble fibers that result in a more moist stool but with less effect on transit time. Today, a variety of dietary supplements are available to add bulk and water- holding capacity to the intestinal contents, such as: (a) malt soup extract (12 g daily in four divided doses); (b) husk and dried ripe seed of the psyllium plant, grown in France, Spain and India, is enriched in a hydrophilic mucilloid that forms a gelatinous mass when mixed with water; (c) a variety of semisynthetic celluloses, including ***methylcellulose*** and ***carboxymethylcellulose*** , compounds hydrophilic and indigestible forming a bulky colloid when mixed with water; (d) polycarbophil compounds that are nonabsorbed hydrophilic polyacrylic resins with the capacity to absorb 60 to 100 times their weight in water, thereby adding bulk and softness to the feces (recommended dose 1 g, one to four times daily, each dose taken with 250 ml water). Psyllium, lignin and pectin bind bile acids, reducing their intestinal reabsorption and promoting their excretion. The consequent increase of hepatic synthesis of bile acids from cholesterol may reduce plasma cholesterol in low-density lipoproteins. It is not possible to lay down desirable levels of intake of dietary fiber. The daily intake of crude fiber, which makes up only part of the dietary fiber in the diet, amounts to 4-8 g in the United Kingdom and 3-4 g in the USA. The mean daily intake of dietary fiber in a British population is estimated to be 19.7 g in a Danish town population 17 g and in a Finnish rural population 31 g. On the basis of satisfactory laxation reported by patients, 20 to 60 g/day of dietary fiber usually is sufficient. Dietary fibers have few side effects and minimal systemic effects. Allergic reactions may occur, especially with use of plant gums. Ca2+ in the gastrointestinal tract and should not be used by patients who must restrict their Ca2+ intake or who are taking tetracyclines concurrently. ***Carboxymethylcellulose*** sodium and psyllium husk may contain significant quantities of Na+ and H2O is a problem. Some preparations contain dextrose and should be avoided in the treatment of diabetic patients. ***Cellulose*** can bind and reduce the intestinal absorption of many drugs, including cardiac glycosides, salicylates and nitrofurantoin; psyllium may bind coumarin derivatives.

L16 ANSWER 10 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:172544 CAPLUS
DOCUMENT NUMBER: 126:176885
TITLE: Encapsulated cells producing viral particles
INVENTOR(S): Saller, Robert Michael; Guenzburg, Walter H.; Salmons, Brian
PATENT ASSIGNEE(S): Bavarian Nordic Research Institute A/s, Den.; Gsf-Forschungszentrum Fuer Umwelt Und Gesundheit GmbH; Saller, Robert Michael; Guenzburg, Walter H.; Salmons, Brian
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9701357	A1	19970116	WO 1996-EP2748	19960624

W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,

IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2222559	AA	19970116	CA 1996-2222559	19960624
AU 9664154	A1	19970130	AU 1996-64154	19960624
AU 708273	B2	19990729		
EP 835137	A1	19980415	EP 1996-923905	19960624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1189104	A	19980729	CN 1996-195050	19960624
JP 11508768	T2	19990803	JP 1996-504165	19960624
NO 9705813	A	19980223	NO 1997-5813	19971210
PRIORITY APPLN. INFO.:			DK 1995-740	19950627
			WO 1996-EP2748	19960624

AB The present invention relates to encapsulated cells producing viral particles, esp. retroviral particles contg. the genome of a viral vector carrying therapeutic genes, methods for the prepn. of such encapsulated cells, as well as the use of such encapsulated cells for the treatment of diseases.

L16 ANSWER 11 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97204293 EMBASE
DOCUMENT NUMBER: 1997204293
TITLE: Oral vehicle administration before radiation causes radioprotection of murine SCCVII tumors.
AUTHOR: Shibamoto Y.; Miyauchi S.; Kiyokawa H.; Hirohashi M.; Takahashi M.
CORPORATE SOURCE: Dr. Y. Shibamoto, Department of Oncology, Chest Disease Research Institute, Kyoto University, Kyoto 606-01, Japan
SOURCE: Oncology Reports, (1997) 4/4 (787-789).
Refs: 8
ISSN: 1021-335X CODEN: OCRPEW
COUNTRY: Greece
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
016 Cancer
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The effect of administering various vehicles on the response to radiation of SCCVII tumors in C3H mice was investigated. When saline, 0.5% carboxymethyl ***cellulose*** solution, or 1% hydroxypropylmethyl ***cellulose*** (HPMC) solution was given orally 30 min before single 15 Gy irradiation, the ***tumor*** regrowth was significantly faster than that seen after 15 Gy treatment alone. There was no difference in this radioprotective response due to the type of vehicle. On the other hand, the ***tumor*** regrowth was similar to that seen after 15 Gy alone when saline was given intravenously 20 min before irradiation or intraperitoneally 30 min beforehand, or when 1% HPMC was given orally 2 h beforehand. Oral vehicle administration shortly before irradiation can cause radioprotection of murine tumors, probably by increasing the hypoxic fraction.

L16 ANSWER 12 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97304886 EMBASE
DOCUMENT NUMBER: 1997304886
TITLE: Subcutaneous xenotransplantation of hybrid artificial pancreas encapsulating pancreatic B cell line (MIN6): Functional and histological study.
AUTHOR: Kawakami Y.; Inoue K.; Hayashi H.; Wang W.J.; Setoyama H.; Gu Y.J.; Imamura M.; Iwata H.; Ikada Y.; Nozawa M.; Miyazaki J.-I.
CORPORATE SOURCE: Y. Kawakami, First Department of Surgery, Faculty of Medicine, Kyoto University, 54-Shogoin Kawaracho, Sakyo-ku, Kyoto 606-01, Japan
SOURCE: Cell Transplantation, (1997) 6/5 (541-545).
Refs: 10
ISSN: 0963-6897 CODEN: CTRAE8
PUBLISHER IDENT.: S 0963-6897(97)00074-2
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 009 Surgery
027 Biophysics, Bioengineering and Medical Instrumentation

LANGUAGE: English
SUMMARY LANGUAGE: English
AB The biohybrid artificial pancreas is designed to enclose pancreatic endocrine tissues with a selectively permeable membrane that immunoisolates the graft from the host immune system, allowing those endocrine tissues to survive and control glucose metabolism for an extended period of time. The pancreatic B cell line MIN6 is established from a pancreas B cell ***tumor*** occurring in transgenic mice harboring the human insulin promoter gene connected to the SV40 T-antigen hybrid gene. It has been proven that glucose- stimulated insulin secretion in MIN6 cells retains a concentration-dependent response similar to that of normal islets. In this study, we performed the histological and functional examination of three-layer microbeads employing MIN6 cells after subcutaneous xeno-transplantation to evaluate this device as bioartificial pancreas. MIN6 cells were microencapsulated in three-layer microbeads formulated with agarose, polystyrene sulfonic acid, polybrene, and carboxymethyl ***cellulose*** . Microbeads were xenogenically implanted in the subcutaneous tissue of the back of Lewis rats with streptozotocin-induced diabetes. One week after implantation, microbeads were retrieved and cultured for 24 h before the static incubation. There was no evidence of adhesion to the graft and the fibrosis in the transplantation site as determined by gross visual inspection. Microscopic examination demonstrated that retrieved microbeads maintained normal shape, containing intact MIN6 cells. Histological study showed that these MIN6 cells in the microbeads appeared to be viable without cellular infiltration within or around the microbeads. Immunohistochemical analysis of the microbeads clearly revealed the intense staining of insulin in the cytoplasm of encapsulated MIN6 cells. Insulin productivity of MIN6 cells in the microbeads is strongly suggested to be preserved. In response to 16.7 mM glucose stimulation, static incubation of microbeads 1 wk after implantation caused the 2.3 times increase in insulin secretion seen after 3.3 mM glucose stimulation (84.3 .+-. 10.0 vs. 37.4 .+-. 10.7 .mu.U/3 x 106 cells/hr, n = 5 each, $p < 0.01$). This study demonstrates that three-layer microbeads encapsulating MIN6 cells retain excellent biocompatibility and maintain good insulin secretion even after subcutaneous xenotransplantation, suggesting the possible future clinical application of this unique bioartificial pancreas to subcutaneous xenotransplantation.

L16 ANSWER 13 OF 87 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 97321460 MEDLINE
DOCUMENT NUMBER: 97321460
TITLE: Oral sustained-release cisplatin preparation for rats and mice.
AUTHOR: Nakano K; Ike O; Wada H; Hitomi S; Amano Y; Ogita I; Nakai N; Takada K
CORPORATE SOURCE: Department of Pharmaceutics and Pharmacokinetics, Kyoto Pharmaceutical University, Japan.
SOURCE: JOURNAL OF PHARMACY AND PHARMACOLOGY, (1997 May) 49 (5) 485-90.
Journal code: JNR. ISSN: 0022-3573.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199711
ENTRY WEEK: 19971101
AB A new oral sustained-release solid-dispersion preparation of cisplatin (cis-diamminedichloroplatinum(II): cisplatin) has been developed for administration to small experimental animals such as mice. This preparation was obtained by formulating cisplatin with the water-insoluble polymer ***ethylcellulose*** and with stearic acid in different ratios. In-vitro dissolution studies showed that cisplatin release characteristics were zero-order for the formulation cisplatin-***ethylcellulose*** -stearic acid (1:10:5) and levels equilibrated 7 h after the start of the experiment. The availability of cisplatin from this preparation was evaluated both in rats and mice. The cisplatin preparation (20 mg kg-1) was administered orally to rats and the resulting curve of serum cisplatin levels against time was compared with that obtained after intravenous infusion (20 mg kg-1) to rats. By comparing the areas under serum concentration-time curves (AUCs), the bioavailability of cisplatin was estimated to be 31%. The mean residence time (MRT) of cisplatin solid dispersion was 6.13 +/- 0.43 h, whereas the MRT of cisplatin administered by intravenous infusion was 3.89 +/- 0.05 h. Serum cisplatin levels were maintained above 0.3 mg mL-1 (believed from our clinical studies to be the

minimum effective concentration) for 24 h. The curve of serum cisplatin level against time suggested that cisplatin was released from the solid dispersion preparation in a sustained-release fashion. Similar levels were also maintained in mice for 24 h. The MRT of the cisplatin preparation was 10-16 h in mice, which is longer than that obtained after oral administration of the physical mixture. The serum free-cisplatin concentration was determined to be 0.10 mg mL-1 in mice serum in which the total cisplatin concentration was 0.30 mg mL-1. The free fraction of cisplatin in mice serum was the same as that in human patient serum. Pathological examination showed that this new sustained-release oral cisplatin preparation did not have any side effects on the gastrointestinal tract. These results suggest usefulness of this new solid-dispersion preparation for oral cisplatin therapy in lung ***cancer*** patients.

L16 ANSWER 14 OF 87 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 97425777 MEDLINE
DOCUMENT NUMBER: 97425777
TITLE: A repeated-dose dermal toxicity study of hydrophobically modified ***hydroxypropyl*** ***methylcellulose*** in rats.
AUTHOR: Obara S; Muto H; Ichikawa N; Tanaka O; Otsuka M; Kawanabe M; Ishii H; Niikura Y; Komatsu M
CORPORATE SOURCE: Specialty Chemicals Research Center, Shin-Etsu Chemical Co., Ltd., Niigata, Japan.
SOURCE: JOURNAL OF TOXICOLOGICAL SCIENCES, (1997 Aug) 22 (3) 255-80.
Journal code: KAE. ISSN: 0388-1350.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199801
ENTRY WEEK: 19980104
AB A six-month repeated-dose dermal toxicity study followed by a 30-day recovery test of hydrophobically modified ***hydroxypropyl*** ***methylcellulose*** (HM-HPMC), a new ***cellulose*** derivative used as a thickener for topical pharmaceuticals, was conducted using rats. Aqueous paste of HM-HPMC was applied to the skin of rats once daily at dose levels up to 60 mg/kg/day, which was the highest dose that could be administered. Items checked included general signs, urinalysis, hematology, ophthalmology, and histopathology. One rat died during the administration period owing to a malignant ***tumor*** in the hemopoietic system, which was not attributed to the test substance. Statistically significant differences were found in some test results, but those were not dose-dependent and were considered to be incidental or spontaneous. It was concluded that the test substance was not toxic upon chronic dermal administration at dose levels up to 60 mg/kg/day.

L16 ANSWER 15 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97160073 EMBASE
DOCUMENT NUMBER: 1997160073
TITLE: In vitro growth of mobilized peripheral blood progenitor cells is significantly enhanced by stem cell factor.
AUTHOR: Cesana C.; Carlo-Stella C.; Mangoni L.; Regazzi E.; Garau D.; Sammarelli G.; Caramatti C.; Almici C.; Rizzoli V.
CORPORATE SOURCE: Dr. C. Carlo-Stella, Cattedra di Ematologia, Centro Trapianti di Midollo Osseo, Universita di Parma, via Gramsci 14, 43100 Parma, Italy
SOURCE: Stem Cells, (1997) 15/3 (207-213).
Refs: 34
ISSN: 1066-5099 CODEN: STCEEJ
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 025 Hematology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The existence of primitive hematopoietic progenitors in mobilized peripheral blood is suggested by clinical, phenotypic and in vitro cell culture evidences. In order to quantify primitive progenitors, 32 leukaphereses from 15 patients with lymphoid malignancies were investigated for the growth of multilineage colony-forming units (CFU-Mix), erythroid burst-forming units (BFU-E) and granulocyte-macrophage colony-forming units (CFU-GM) in the absence or presence of recombinant stem cell factor (SCF), a cytokine which selectively controls

stem cell self-renewal, proliferation and differentiation. Primitive progenitors were also quantitated by means of a long-term assay which allows the growth of cells capable of initiating and sustaining hematopoiesis in long-term culture (LTC-IC). Addition of SCF (50 ng/ml) to methyl- ***cellulose*** cultures stimulated with maximal concentrations of G-CSF, GM-CSF, interleukin 3 and erythropoietin significantly increased the growth (mean .+-. SE) of CFU-Mix (7.7 .+-. 1.7 versus 2.4 .+-. 0.6, p .ltoreq. 0.0001), BFU-E (47 .+-. 10 versus 32 .+-. 6, p .ltoreq. 0.002) and CFU-GM (173 .+-. 31 versus 112 .+-. 20, p .ltoreq. 0.0001). Mean (.+-. SE) percentages of SCF-dependent CFU-Mix, BFU- E and CFU-GM were 60 .+-. 5%, 19 .+-. 5%, and 33 .+-. 4%, respectively. Mean (.+-. SE) LTC-IC growth per 2 x 106 nucleated cells was 221 .+-. 53 (range, 2 to 704). Linear regression analysis demonstrated a statistically significant correlation (r = .87; p .ltoreq. 0.0001) between LTC-IC and SCF-dependent progenitors. In conclusion, our data suggest that: A) the optimal quantification of mobilized progenitors requires supplementation of ***methylcellulose*** cultures with SCF, and B) in vitro detection of SCF-dependent progenitors might represent a reliable and technically simple method to assess the primitive progenitor cell content of blood cell autografts. Such in vitro evaluation of immature hematopoietic progenitors might be clinically relevant for predicting the reconstituting potential of autografts.

L16 ANSWER 16 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:9146 CAPLUS
DOCUMENT NUMBER: 126:28792
TITLE: Water-dispersible material-based hard stick for feces sampling
INVENTOR(S): Juki, Runa; Oguchi, Kyoshi; Shibuya, Che
PATENT ASSIGNEE(S): Dainippon Printing Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08271511	A2	19961018	JP 1995-69426	19950328

AB Disclosed is a feces-sampling stick made of water-dispersible material with holes in the lower center (diagrams shown). The sticks are useful for detection of fecal occult blood and for diagnosis of colon ***cancer*** . CM- ***cellulose*** sodium-based paper coated with reagent contg. Me Et ketone, 2-methoxyethanol, ***ethylcellulose*** , LF-40, Rheodol SP-P10, Aerosil R972D, and UVITEX OB was used to make the disclosed stick.

L16 ANSWER 17 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:282687 CAPLUS
DOCUMENT NUMBER: 130:287089
TITLE: Emulsion- and foam-type intragastric floating sustained-release compositions
INVENTOR(S): Cong, Fanzi
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1114562	A	19960110	CN 1994-107792	19940705

AB The title compns. are composed of active ingredients 0.00001-10, lipophilic solvents 5-40, emulsifiers 0.01-10, hydrophilic solvents 30-80, sustained-release agents 0-10, and gastric mucosa protecting agents 0-10%. Active ingredients are selected from drugs for treating diseases in cardio- and cerebrovascular system, respiratory system and digestive system and stomach ***cancer*** and anti-inflammatory and antipyretic agents. Lipophilic solvents are selected from materials such as food fats, vegetable oils, hydrogenate vegetable oils, volatile oils, aliph. hydrocarbons. and their derivs. having sp. gr. <1. Low-toxicity nonionic or anionic surfactants are used as emulsifiers. Distd. water or purified water is used as hydrophilic solvent. Sustained-release agents are

selected from natural or synthetic polymers, ***cellulose*** derivs. and polysaccharides or salts. Amino acids and phospholipids [egg yolk lecithins] are used as gastric mucosa protecting agents. An emulsion-type prepn. was formulated contg. nitrendipine 0.1, purified soya oil 20, ceresin wax 10, soya lecithin 1.5, sodium palmitate 1.2, Me ***cellulose*** 1.5, pectin 4.5 and water to 150 g.

L16 ANSWER 18 OF 87 MEDLINE
ACCESSION NUMBER: 96217204 MEDLINE
DOCUMENT NUMBER: 96217204
TITLE: Ferric ammonium citrate- ***cellulose*** paste for opacification of the esophageal lumen on MRI.
AUTHOR: Ogawa Y; Noda Y; Morio K; Nishioka A; Inomata T; Yoshida S; Toki T; Ogoshi S
CORPORATE SOURCE: Department of Radiology Kochi Medical School, Japan.
SOURCE: JOURNAL OF COMPUTER ASSISTED TOMOGRAPHY, (1996 May-Jun) 20 (3) 455-9.
Journal code: HVT. ISSN: 0363-8715.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199608
AB OBJECTIVE: A new ferric ammonium citrate- ***cellulose*** mixture for use in MRI of the esophagus was evaluated for its ability to opacify the esophageal lumen. MATERIALS AND METHODS: Thirty-two patients with esophageal disorders and ten patients with normal esophagus undergoing MRI at 1.5 T were given approximately 100 ml of the newly developed high-viscosity esophageal contrast preparation. Moreover, six of the patients with esophageal ***cancer*** were subjected to a second examination after radiation therapy. A total of 48 MR imagings were performed. RESULTS: Of the patients examined, successful esophageal opacification, graded as excellent, was obtained in 84.2, 78.9, and 57.9%, of the sagittal, axial, and coronal images, respectively. In cases of extrinsic disease involving the esophagus the contrast medium administration allowed the easy differentiation of the esophagus from adjacent mass lesions and proved very useful in identifying displacement and compression. In cases of esophageal carcinoma the contrast medium administration assisted in the measurement of wall thickness and length of the lesion as well as in the identification of the site of origin of the ***tumor*** . CONCLUSION: The results indicate that this product effectively opacifies the esophageal lumen in the majority of patients. We found that it is easy to use, is well tolerated, and does not produce artifacts.

L16 ANSWER 19 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96027886 EMBASE
DOCUMENT NUMBER: 1996027886
TITLE: Targeted ***cancer*** chemotherapy with arterial microcapsule chemoembolization: Review of 1013 patients.
AUTHOR: Kato T.; Sato K.; Sasaki R.; Kakinuma H.; Moriyama M.
CORPORATE SOURCE: Department of Urology, Akita University School of Medicine, 1-1-1 Hondo,Akita 010, Japan
SOURCE: Cancer Chemotherapy and Pharmacology, (1996) 37/4 (289-296).
ISSN: 0344-5704 CODEN: CCPHDZ
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 011 Otorhinolaryngology
015 Chest Diseases, Thoracic Surgery and Tuberculosis
016 Cancer
028 Urology and Nephrology
048 Gastroenterology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
AB To evaluate the feasibility of intraarterial infusion of microencapsulated anticancer drugs (chemoembolization), collective data on 1013 ***cancer*** patients were reviewed. ***Ethylcellulose*** microcapsules containing mitomycin C (median total dose 20 mg), cisplatin (60 mg) or peplomycin (40 mg) were given to ***tumor*** -feeding arteries by bolus infusion in 79% of the patients and by fractionated infusion in the others, as a palliative (71%) or preoperative measure

ethylcellulose microspheres, and a control group undergoing the conventional chemotherapy with cisplatin. The peripheral venous cisplatin concentration and the cisplatin concentration at the local tissue were determined. RESULT: The experiment showed a significant difference in the peripheral venous cisplatin concentration between the two groups and between the time period. There was also a significant interaction between groups and time. The peak concentration in the experimental group appeared 12 to 24 hours after chemoembolization. The peak concentration in the control group appeared immediately after the anticancer drug was infused. There was a significant difference in the concentration in the local tissue between the two groups, when all time periods were aggregated. CONCLUSION: Compared with conventional chemotherapy, the maxillofacial arterial chemoembolization with cisplatin encased in ***ethylcellulose*** microspheres significantly decreases the cisplatin concentration in the peripheral venous circulation and increases the concentration in the local tissues, allowing for the possibility of target ***cancer*** therapy.

L16 ANSWER 24 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 95047509 EMBASE
DOCUMENT NUMBER: 1995047509
TITLE: The clinical uses of dietary fiber.
AUTHOR: Gray D.S.
CORPORATE SOURCE: Community Hospital, Family Practice Residency Program,Santa Rosa, CA, United States
SOURCE: American Family Physician, (1995) 51/2 (419-424). ISSN: 0002-838X CODEN: AFPYAE
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Dietary fiber has received considerable attention in both the popular press and the scientific literature. Fiber is a complex mixture of substances, and research on its effects is difficult to interpret. Dietary fiber has significant gastrointestinal effects, and it is a mainstay of treatment for constipation and hemorrhoids. Insoluble fiber, such as wheat bran, is most effective for treatment of these conditions. Increased intake of soluble dietary fiber appears to benefit patients with diabetes mellitus and hyperlipidemia. High-fiber, low-fat diets have been recommended by a variety of authorities to decrease the incidence of heart disease and certain types of ***cancer*** . Any increase in dietary fiber intake should be accompanied by an increase in water intake.

L16 ANSWER 25 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:850534 CAPLUS
DOCUMENT NUMBER: 123:254661
TITLE: Protective properties of pluronic and ***cellulose*** on hybridoma cell culture
AUTHOR(S): Xu, Diansheng; Wu, Tieping; Wu, Xiaowei; Zhang, Yuanxing; Chen, Yinliang
CORPORATE SOURCE: Res. Inst. Biochem. Eng., East China Univ. Sci. Technol., Shanghai, 200237, Peop. Rep. China
SOURCE: Shengwu Gongcheng Xuebao (1995), 11(2), 120-5 CODEN: SGXUED; ISSN: 1000-3061
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The potential toxicity and optimal concns. of different protective agents such as pluronic F-68, ***methylcellulose*** (MC.), CMC, and GPE on the growth in vitro of murine hybridoma 2F7 cell which secretes monoclonal antibody against small cell lung ***cancer*** were studied. The effects of adding protective agents on glucose utilization rate and ammonia prodn. rate were investigated. The protective effects of different protective agent concns. at high agitation speed were also obsd. It is shown that 0.05-0.10% (W/V) pluronic F-68, 0.10-0.20% (W/V) MC can protect hybridoma cell from shear stress at high agitation speed. Adding pluronic F-68 can increase glucose utilization rate and ammonia prodn. rate, while adding MC does not effect glucose utilization rate, but increase ammonia prodn. rate. Although CMC does not effects, 2F7 cell growth at the concn. less 0.10% (W/V), but it exhibits no protective property. GPE can disintegrate hybridoma cell. In 1.5 L Celligen bioreactor, when pluronic F-68 concn. is 0.10% (W/V) in medium and agitation speed is 70 r/min the hybridoma cell can grow normally.

L16 ANSWER 26 OF 87 MEDLINE
ACCESSION NUMBER: 96230274 MEDLINE
DOCUMENT NUMBER: 96230274
TITLE: Comparison of the effect of the linseed extract Salinum and a methyl ***cellulose*** preparation on the symptoms of dry mouth.
AUTHOR: Andersson G; Johansson G; Attstrom R; Edwardsson S; Glantz P O; Larsson K
CORPORATE SOURCE: Department of Maxillofacial Surgery, University Hospital, Malmo, Sweden.
SOURCE: GERODONTOLOGY, (1995 Jul) 12 (1) 12-7.
Journal code: GEY. ISSN: 0734-0664.
PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Dental Journals; Dental
ENTRY MONTH: 199608
AB The effect of a linseed extract Salinum and a sodium carboxymethyl ***cellulose*** preparation called MAS-84 was compared with regard to its effect on the symptoms of dry mouth. Twenty patients with xerostomia, who had been treated for ***cancer*** in the head and neck by radiation were recruited from the clinic for maxillofacial surgery, Malmo University Hospital. Following radiation treatment the salivation was severely reduced. The symptoms of a general feeling of a dry mouth, difficulties in chewing and swallowing, taste disturbances, problems with speech and mouth burning were registered on a subjective verbal rating scale. In addition plaque index and gingival bleeding were determined. The study design was crossover and performed single blind. The experimental period was 7 weeks. The patients were randomly divided into 2 groups. One group used Salinum and the other MAS-84 for 3 weeks. The fourth week was a wash out period and for the next three weeks the patients shifted preparation. Each of the preparations was used ad libitum. Registrations of the various parameters were undertaken on days 0, 7 and 21 of the respective period. At the initial examination all patients reported considerable disturbances from mouth-dryness. These symptoms were reduced in 15 patients during the Salinum period and in 9 during the MAS-84 period. The relief was significantly more pronounced during the use of Salinum compared to that during the use of the methyl ***cellulose*** preparation. On day 21 plaque and gingival bleeding were significantly reduced during the Salinum period but not during the MAS-84 period. The results of the present study confirm those of a previous pilot study and indicate that the linseed mucilage significantly reduced the symptoms of dry mouth. This effect increased with increasing time of saliva substitute use. The linseed mucilage Salinum appeared to be a suitable saliva replacement in mouth dry patients.

L16 ANSWER 27 OF 87 MEDLINE
ACCESSION NUMBER: 95319883 MEDLINE
DOCUMENT NUMBER: 95319883
TITLE: A new ***cellulose*** -barium gel for computed tomography of the esophagus.
AUTHOR: Ogawa Y; Noda Y; Kamiike O; Hamada N; Terashima M; Nishioka A; Inomata T; Yoshida S; Okino K
CORPORATE SOURCE: Department of Radiology, Kochi Medical School..
SOURCE: NIPPON IGAKU HOSHASEN GAKKAI ZASSHI. NIPPON ACTA RADIOLOGICA, (1994 Dec 25) 54 (14) 1415-7.
Journal code: O3G. ISSN: 0048-0428.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
ENTRY MONTH: 199510
AB A new oral contrast agent for CT of the esophagus was evaluated for its ability to coat the esophageal lumen in 12 patients with esophageal diseases. This agent is made of carboxymethyl ***cellulose*** sodium, potato starch and low-density barium, and has remarkably high viscosity of 13600 centipoise. The esophagus was divided into proximal, mid, and distal segments to analyze the effectiveness of lumenal opacification. The average percent opacification of these segments was 78.7, 86.4, and 63.4%, respectively, for all patients. This agent is expected to play a possible role in the CT diagnosis of esophageal ***cancer*** by helping to determine the indications for radical surgery and/or radiotherapy.

L16 ANSWER 28 OF 87 EMBASE

ACCESSION NUMBER: 94321211 EMBASE
DOCUMENT NUMBER: 1994321211
TITLE: Effect of dialyser membranes on extracellular and intracellular granulocyte and monocyte activation in ex vivo pyrogen-free conditions.
AUTHOR: Mahiout A.; Courtney J.M.
CORPORATE SOURCE: University of Strathclyde, Bioengineering Unit, 106 Rottenrow,Glasgow G4 0NW, United Kingdom
SOURCE: Biomaterials, (1994) 15/12 (969-980).
ISSN: 0142-9612 CODEN: BIMADU
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 025 Hematology
027 Biophysics, Bioengineering and Medical Instrumentation
028 Urology and Nephrology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB This study examined effects of blood-contacting materials on the monocyte reaction following the first contact of human blood with hollow fibre dialyser membranes under pyrogen-free conditions. Membrane materials were the uncharged regenerated ***cellulose*** , the synthetic polysulphone (PS), a positively charged diethylaminoethyl ***cellulose*** (DEAE-C), the negatively charged carboxymethyl ***cellulose*** (CMC) and acrylonitrile copolymer (AN). The experimental system involved perfusion with human fresh venous blood through different modules containing the materials in the form of hollow fibre membranes. Extracellular and intracellular aspects of blood reactions after the first contact with the materials were investigated in Ficoll-separated granulocytes and peripheral blood mononuclear cells. Investigations were done by release reactions of platelet activating factor (PAF), oxygen radical (O2-), leukotriene B4, prostaglandin E2 (PGE2) and cytokines (IL-1.beta., TNF-.alpha., IL-6). The intracellular activation of peripheral blood mononuclear cells was done by mRNA transcription of IL-1.beta., TNF-.alpha., IL-6, IL-8 and .beta.2-microglobulin (.beta.2-MG). From the set of parameters, release reactions were only measurable for PAF, PGE2 and O2- if a second stimulus (phorbol myristate acetate, lipopolysaccharide, zymosan and calcium ionophore) was used after blood-membrane interaction. Although the extent of the release reaction was weak, negatively charged membranes were, in general, more active. All dialysers exhibited the same increase in .beta.2-MG mRNA transcription, suggesting that all blood-contacting membranes initiate the gene expression of .beta.2-MG at the same level. TNF-.alpha., IL-6, IL-1.beta. and IL-8 mRNAs were demonstrated in the AN and CMC membranes rather than the other materials, which exhibit a lower transcription than the tubing set. As has been found, an enhanced generation of PGE2 for both CMC and AN membranes supports, therefore, the concept of an effect of the negative charges of the materials in the gene expression of cytokines. However, this initiation does not lead to the generation of cytokines, even after stimulation with pyrogens.

L16 ANSWER 29 OF 87 MEDLINE
ACCESSION NUMBER: 93315527 MEDLINE
DOCUMENT NUMBER: 93315527
TITLE: Hexadecylphosphocholine differs from conventional cytostatic agents.
AUTHOR: Berger M R; Betsch B; Gebelein M; Amtmann E; Heyl P; Scherf H R
CORPORATE SOURCE: Department of Carcinogenesis and Chemotherapy, German Cancer Research Center, Heidelberg..
SOURCE: JOURNAL OF CANCER RESEARCH AND CLINICAL ONCOLOGY, (1993) 119 (9) 541-8.
Journal code: HL5. ISSN: 0171-5216.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199310

AB Alkylphosphocholines, and especially their main representative hexadecylphosphocholine (HPC), show high anticancer activity in methylnitrosourea (MNU)-induced autochthonous rat mammary carcinoma. The regression of MNU-induced rat mammary carcinoma during HPC treatment can be evaluated by computed tomography and sonography. This allows a noninvasive monitoring of therapy in vivo (***tumor*** size, morphology, and blood supply). Both diagnostic modalities can show a rapid

every day or as an intravenous (i.v.) injection at 0.5, 0.05, or 0.005 mg/kg three times a week. Poly(I,C)-LC treatment significantly increased antitumor effector cell functions in a variety of organs (including spleen, lungs, and peritoneum), as shown by increased killing of MBL-2 cells in vitro and increased ***tumor*** cell killing by natural killer cells and macrophages. Furthermore, prolongation of survival correlated with peritoneal macrophage tumoricidal activity when poly(I,C)-LC was given i.p. and with pulmonary effector cell function (including natural killer, cytolytic T-lymphocyte and macrophage tumoricidal activity) when the agent was administered i.v.

L16 ANSWER 33 OF 87 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 93071078 MEDLINE
DOCUMENT NUMBER: 93071078
TITLE: Studies on pharmacokinetics of cisplatin-***ethylcellulose*** microspheres for maxillary arterial embolization in dogs..
AUTHOR: Wei S L; Qi X R; Yang J
CORPORATE SOURCE: School of Pharmaceutical Science, Beijing Medical University..
SOURCE: YAO HSUEH HSUEH PAO [ACTA PHARMACEUTICA SINICA], (1992) 27 (5) 381-4.
Journal code: 1PU. ISSN: 0513-4870.
PUB. COUNTRY: China
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
ENTRY MONTH: 199302
AB This paper reports the preparation and pharmacokinetic studies of DDP-EC-ms. The DDP-EC-ms were infused into the maxillary artery of dogs and DDP were infused into the vein as control. The concentration of DDP in peripheral venous blood and tissue was determined by FAAS. Results showed that the DDP level of DDP-EC-ms in the circulating blood was significantly lower than that in dogs given DDP intravenously. However, a significantly higher DDP concentration in tissues was found in dogs treated with DDP-EC-ms. These facts suggest that maxillary arterial embolization with DDP-EC-ms, which significantly reduced the systematic side effects and increased the level of DDP in the embolized local tissue, could achieve the purpose of targeted ***cancer*** therapy.

L16 ANSWER 34 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:469716 CAPLUS
DOCUMENT NUMBER: 115:69716
TITLE: Synergistic effect of recombinant interferon-.gamma. and interleukin-3 on the growth of immature human hematopoietic progenitors
AUTHOR(S): Kawano, Yoshifumi; Takaue, Yoichi; Hirao, Atsushi; Abe, Takanori; Saito, Shinichi; Matsunaga, Keiko; Watanabe, Tsutomu; Hirose, Masao; Ninomiya, Tsuneo; et al.
CORPORATE SOURCE: Dep. Pediatrics, Univ. Hosp. Tokushima, Tokushima, Japan
SOURCE: Blood (1991), 77(10), 2118-21
CODEN: BLOOAW; ISSN: 0006-4971
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Purified peripheral blood hematopoietic progenitors from children in early remission from ***cancer*** respond to recombinant human interleukin-3 (IL-3), but not to granulocyte colony-stimulating factor (G-CSF). With these purified cells as a target, the effect was studied of recombinant human interferon-.gamma. (IFN-.gamma.) on progenitor growth, using both liq.-suspension limiting diln. assay (LDA) and regular methyl-***cellulose*** culture of progenitors. It was found that in LDA with IL-3, IFN-.gamma. directly stimulated the growth of blood progenitors in a dose-dependent manner with single-hit kinetics, whereas IFN-.gamma. suppressed the growth of G-CSF-supported progenitors obtained from bone marrow. The stimulatory effect was also obsd. in ***methylcellulose*** culture, but the addn. of antibodies for G-CSF, granulocyte-macrophage CSF, IL-1.alpha., IL-1.beta., IL-6, or ***tumor*** necrosis factor did not result in a decrease of the colony no., supporting further the possible direct effect of IFN-.gamma. on progenitor growth. Thus, the inhibitor effect on IFN-.gamma. on hematopoietic progenitors is limited to those in an advanced stage of maturation. IFN-.gamma. may be one of the essential lymphokines upregulating the growth of human hematopoietic progenitor cells.

L16 ANSWER 35 OF 87 MEDLINE
ACCESSION NUMBER: 91364582 MEDLINE
DOCUMENT NUMBER: 91364582
TITLE: Hepatic arterial infusion of cisplatin microspheres for transplantable hepatocellular carcinoma in rats.
AUTHOR: Wang Y
CORPORATE SOURCE: Institute of Hepatobiliary Surgery, Second Military Medical College, Shanghai.
SOURCE: CHUNG-HUA CHUNG LIU TSA CHIH [CHINESE JOURNAL OF ONCOLOGY], (1991 Jan) 13 (1) 40-2.
Journal code: EBH. ISSN: 0253-3766.
PUB. COUNTRY: China
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199112
AB Anti- ***tumor*** activity of cisplatin-capsulated microspheres with ***ethylcellulose*** (CDDPmc) was studied in Wistar rat bearing transplantable hepatocellular ***cancer*** . Seven days after inoculation into the rat's liver, normal saline, conventional cisplatin, placebo ***ethylcellulose*** microsphere and CDDPmc at comparable doses were infused into the proper hepatic artery. The results indicated that the rats treated with CDDPmc had a significantly slower ***tumor*** growth, more extensive ***tumor*** necrosis and longer survival as compared with the three other groups. It is suggested that the tumoricidal effect of arterial chemoembolization with CDDPmc be superior to arterial chemotherapy or embolization alone in the treatment of liver ***cancer*** .

L16 ANSWER 36 OF 87 MEDLINE
ACCESSION NUMBER: 86267864 MEDLINE
DOCUMENT NUMBER: 86267864
TITLE: Embolotherapy of hepatomas using ferromagnetic microspheres, its clinical evaluation and the prospect of its use as a vehicle in chemoembolo-hyperthermic therapy.
AUTHOR: Sako M; Hirota S
SOURCE: GAN TO KAGAKU RYOHO [JAPANESE JOURNAL OF CANCER AND CHEMOTHERAPY], (1986 Apr) 13 (4 Pt 2) 1618-24.
Journal code: 6T8. ISSN: 0385-0684.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198610
AB Ferromagnetic microembolization (FME) was applied to patients with hepatoma, using iron microspheres (30-50 mu), suspended in aqueous polysaccharide solution; dextran 40 (12%), sodium carboxymethyl-***cellulose*** (2%) in saline solution. Hepatic arterial infusion of this agent was performed under external magnetic control to confine iron microspheres within the target organs. The therapeutic effect of this procedure on 44 patients with hepatoma was evaluated in relation to the stages of the disease, showing excellent, improved survival terms; survival rates calculated by Kaplan-Meier's method for patients with stage I to III hepatomas were 80% (1 year), 50% (2 years) and 30% (3 years). In order to extend the therapeutic effect of this procedure further, polysaccharide solution was also utilized as a carrier of anti-***cancer*** agents. Serologic and histologic data in experimental animals showed evidence of prolonged release of Mitomycin from polysaccharide solution admixed, indicating its potential use as a method of chemo-embolization. In addition to this, we have also been developing the induction heating of the magnetic microspheres, introduced into the lesion by means of FME, to heat the lesion selectively. The procedure is still in the experimental phase. However, recent results strongly suggest the possibility of its clinical use. In conclusion, we consider FME to be one of the most reliable and potentially valuable methods for extending the capability of multidisciplinary treatment of hepatoma.

L16 ANSWER 37 OF 87 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 86105945 MEDLINE
DOCUMENT NUMBER: 86105945
TITLE: Dissociation of therapeutic and toxic effects of polyinosinic-polycytidylic acid admixed with poly-L-lysine and solubilized with carboxymethyl ***cellulose*** in ***tumor*** -bearing mice.
AUTHOR: Hartmann D; Adams J S; Meeker A K; Schneider M A; Lenz B F;

effect on responder cells cultured in the absence of allogeneic stimulator cells. Further, the addn. of poly(I,C)-LC to an allogeneic mixed-lymphocyte ***tumor*** reaction did not stimulate the development of cytotoxic effector T-cells. Poly(I,C)-LC did, however, have adjuvant activity when admixed with irradiated ***tumor*** cells in the immunization of syngeneic mice. Unlike classic adjuvants, poly(I,C)-LC also enhanced the development of specific cytotoxic T-lymphocytes when it was injected either i.v. or i.p. in conjunction with a vaccine delivered at an intradermal site. Apparently, poly(I,C)-LC has considerable potential as an immunotherapeutic agent, with the ability not only to induce macrophage and NK cell activation but also to stimulate specific cytotoxic T-lymphocytes.

L16 ANSWER 42 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 86028353 EMBASE
DOCUMENT NUMBER: 1986028353
TITLE: Growth of urinary transitional cell carcinoma cell lines in agar, agarose and methyl ***cellulose*** .
AUTHOR: Flanigan R.C.; Pavlik E.J.; Van Nagell Jr. J.R.; et al.
CORPORATE SOURCE: Lexington Veterans Administration Hospital, University of Kentucky College of Medicine, Lexington, KY, United States
SOURCE: Journal of Urology, (1985) 134/5 (985-990).
CODEN: JOURAA
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 028 Urology and Nephrology
016 Cancer
005 General Pathology and Pathological Anatomy
LANGUAGE: English
AB Because in vitro cell growth of transitional cell carcinoma explants and cell lines often fail to adequately proliferate in semisolid media, we have examined the effect of agents used to make media semisolid (methyl ***cellulose*** , Bacto-agar, Sea Plaque agarose and Sea Prep 15/45 agarose) on the in vitro growth of 11 transitional cell carcinoma cell lines. The growth of human transitional cell carcinoma lines was supported such that agents permissive for growth ranked as follows: Sea Plaque agarose .apprx. Sea Prep agarose > methyl ***cellulose*** > Bacto-agar. These observations have important implications for the in vitro study of transitional cell carcinoma cell lines and are relevant to the development of improved chemosensitivity determinations for human transitional cell carcinoma.

L16 ANSWER 43 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1986:102062 CAPLUS
DOCUMENT NUMBER: 104:102062
TITLE: Pharmacokinetic and therapeutic activity of polyinosinic-polycytidylic acid stabilized with poly-L-lysine in ***carboxymethylcellulose*** [poly(I,C)-LC]
AUTHOR(S): Chirigos, M. A.; Schlick, E.; Ruffmann, R.; Budzynski, W.; Sinibaldi, P.; Gruys, E.
CORPORATE SOURCE: Div. Cancer Treatment, Natl. Cancer Inst., Frederick, MD, USA
SOURCE: J. Biol. Response Modif. (1985), 4(6), 621-7
CODEN: JBRMDS; ISSN: 0732-6580
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In mice, poly(I,C)-LC [59789-29-6] augmented natural killer (NK) cell activity in several tissues. Macrophage tumoricidal activity was also markedly increased. Both effector cells were active for 9 days. Poly(I,C)-LC also increased effector cell response in 4 of 5 routes tested. Injections of poly(I,C)-LC resulted in elevated effector cell responses in 4 of 5 routes tested. Treatment with poly(I,C)-LC led to an earlier reconstitution of bone marrow cells, NK cell activity, and macrophage effector cell activity in mice pretreated with cyclophosphamide [50-18-0]. Combined treatment of MBL-2 ***tumor*** cells with cytoreductive chemotherapy and poly(I,C)-LC resulted in an enhanced therapeutic response.

L16 ANSWER 44 OF 87 MEDLINE
ACCESSION NUMBER: 86087994 MEDLINE
DOCUMENT NUMBER: 86087994
TITLE: Historical overview of the use of polynucleotides in ***cancer*** .
AUTHOR: Levy H B

SOURCE: JOURNAL OF BIOLOGICAL RESPONSE MODIFIERS, (1985 Oct) 4 (5) 475-80.
Journal code: JBM. ISSN: 0732-6580.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198604

AB A search for effective inducers of interferon lead to the discovery of polyinosinic-polycytidylic acid [poly(I,C)], which was effective in rodents but not primates. Stabilization of poly(I,C) with poly-L-lysine and carboxymethyl- ***cellulose*** produced a derivative that is much more effective as an inducer in humans, but also more toxic. The ability of modified poly(I,C) to induce interferon in primates appears to be at least partly related to its ability to resist hydrolysis by nucleases. As the ability to induce interferon in primates increases, so does the toxicity. Several investigations have emphasized increasing the ease of hydrolysis in order to minimize toxicity. The inducers should not be considered just as a readily available source of interferon, as there are a number of differences between the biologic effects of the inducers and exogenous interferon.

L16 ANSWER 45 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85243216 EMBASE
DOCUMENT NUMBER: 1985243216
TITLE: Microcapsule chemoembolization for head and neck ***cancer*** .
AUTHOR: Okamoto Y.; Konno A.; Togawa K.; et al.
CORPORATE SOURCE: Department of Otorhinolaryngology, Akita University School of Medicine, Akita City, Akita 010, Japan
SOURCE: Archives of Oto-Rhino-Laryngology, (1985) 242/1 (105-111).
CODEN: AORLCG
COUNTRY: Germany
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
016 Cancer
011 Otorhinolaryngology
030 Pharmacology
LANGUAGE: English

AB Cisplatin (CDDP) was microencapsulated with ***ethylcellulose*** , and microcapsules (CDDP-mc) were infused into the maxillary arteries of patients with various head and neck carcinomas. We then found that the CDDP level in the circulating blood was significantly lower than that in patients administrated intravenous non-excapsulated CDDP. However, significantly high concentrations of CDDP were found in the tissues of patients treated with CDDP-mc. Our results suggest that selective arterial infusions of CDDP-mc can exert an intensive topical antitumor effect through microinfarction of malignant tissues. The prolonged release of drug from the microcapsules has also been associated with minimal systemic side effects.

L16 ANSWER 46 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85180763 EMBASE
DOCUMENT NUMBER: 1985180763
TITLE: Cloning ovarian carcinoma cells in an agar double layer versus a ***methylcellulose*** monolayer system. A comparison of two methods.
AUTHOR: Runge H.-M.; Neumann H.A.; Bucke W.; Pfleiderer A.
CORPORATE SOURCE: Onkologische Abteilung, Universitats-Frauenklinik, D-7800 Freiburg, Germany
SOURCE: Journal of Cancer Research and Clinical Oncology, (1985) 110/1 (51-55).
CODEN: JCROD7
COUNTRY: Germany
DOCUMENT TYPE: Journal
FILE SEGMENT: 016 Cancer
010 Obstetrics and Gynecology
LANGUAGE: English

AB Human ovarian ***cancer*** cells from ten patients were cultured in the agar double layer assay as described by Hamburger and Salmon and in a ***methylcellulose*** monolayer system. The assays were compared under the same experimental conditions. The rate of positives (defined as >30 colonies/dish) was 75% in the ***methylcellulose*** assay and 69% in the agar double layer. Plating efficiency ranged in the methyl-***cellulose*** assay between 0.021% and 0.089% and in the agar double

layer from 0.015% to 0.094%. Cytological and cytochemical staining of cells obtained from colonies in both test systems and of the ***tumour*** cells prior to plating revealed the same morphology. The ***methylcellulose*** monolayer system requires less additives than necessary in the agar double layer system. Furthermore, it is easier to handle with respect to the plating procedure and less time consuming. In addition, the effect of the anti-oestrogen tamoxifen on colony formation was tested. The dose response curves for colony formation with tamoxifen proved to be identical in both systems. At a concentration of 10-6 M an inhibition of colony formation of more than 70% of controls was observed in the agar and in the ***methylcellulose*** system.

L16 ANSWER 47 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1984:356718 BIOSIS
DOCUMENT NUMBER: BA78:93198
TITLE: MAGNETIC MICRO CAPSULES FOR IN-VITRO TESTING AS CARRIER FOR INTRA VASCULAR ADMINISTRATION OF ANTI ***CANCER*** DRUGS PREPARATION AND PHYSICOCHEMICAL PROPERTIES.
AUTHOR(S): ISHII F; TAKAMURA A; NORO S
CORPORATE SOURCE: MEIJI COLLEGE PHARMACY, 1-22-1, YATO-CHO, TANASHI-SHI, TOKYO 188, JPN.
SOURCE: CHEM PHARM BULL (TOKYO), (1984) 32 (2), 678-684. CODEN: CPBTAL. ISSN: 0009-2363.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The preparation of anticancer agent-loaded microcapsules magnetically responsive to applied magnetic fields is described, together with some biophysical and biochemical data. The ***ethylcellulose*** -walled microcapsules containing magnetite (Fe3O4, as a ferrofluid) and anticancer agents [1-(2-tetrahydrofuranyl)-5-fluorouracil] had a diameter of 0.2-0.6 .mu.m (mean diameter, 0.308 .mu.m). The retention of these microcapsules by magnetic fields was measured in an in vitro model of the human circulation system. The apparatus provided steady flow at various rates through various type of horizontally mounted glass capillary tubes. The retention of magnetically responsive microcapsules was also evaluated in terms of the Reynolds number. The microcapsules were caught and held with high efficiency at specific sites within a large artery model by using external permanent or electric magnets; the captured microcapsules did not aggregate irreversibly when the electric field was removed.

L16 ANSWER 48 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1984:308908 BIOSIS
DOCUMENT NUMBER: BA78:45388
TITLE: DRUG RELEASE PROPERTIES OF THE MICRO CAPSULES OF ADRIAMYCIN HYDRO CHLORIDE WITH ETHYL ***CELLULOSE*** PREPARED BY A PHASE SEPARATION TECHNIQUE.
AUTHOR(S): KAWASHIMA Y; LIN S Y; KASAI A; TAKENAKA H; MATSUNAMI K; NOCHIDA Y; HIROSE H
CORPORATE SOURCE: GIFU COLL. PHARMACY, 5-6-1 MITAHORAHIGASHI, GIFU 502, JPN.
SOURCE: DRUG DEV IND PHARM, (1984) 10 (3), 467-480. CODEN: DDIPD8. ISSN: 0363-9045.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Adriamycin hydrochloride was microencapsulated with ***ethylcellulose*** [a drug delivery system for an anticancer agent] by a phase separation method to develop a prolonged release dosage form. Polyisobutylene (PIB) was used as a coacervation-inducing agent to control the particle size and drug release rate of the resultant microcapsules. With increasing concentration of PIB (1-3%) the average diameter of the microcapsules decreased, due to the fact that the microcapsules were discreted to a single microcapsule. At low concentration of PIB, the resultant microcapsules were agglomerated, which resulted in increasing the size. The microcapsules prepared with PIB 2% prolonged desirably the drug release from the microcapsules. A small size effects the drug release rate for the microcapsules with PIB 2 and 3%.

L16 ANSWER 49 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1985:299108 BIOSIS
DOCUMENT NUMBER: BA79:79104
TITLE: COMPARISON OF IN-VITRO AND IN-VIVO MODULATION OF MYELOPOIESIS BY BIOLOGICAL RESPONSE MODIFIERS.
AUTHOR(S): SCHLICK E; HARTUNG K; CHIRIGOS M A
CORPORATE SOURCE: LAB. MOL. IMMUNOREGULATION, NATL. CANCER INST.-FREDERICK CANCER RES. FACILITY, FREDERICK, MD. 21701, USA.
SOURCE: CANCER IMMUNOL IMMUNOTHER, (1984 (RECD 1985)) 18 (3),

226-232.
CODEN: CIIMDN. ISSN: 0340-7004.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB In vitro growth and differentiation of granulocyte-macrophage progenitor cells (GM-CFU-C) requires colony-stimulating factors (CSF) and an in vivo role for CSF has also been proposed. Prostaglandins of the E series (PGE) have been reported to serve as negative feedback regulators of myelopoiesis. Evidence of augmented CSF secretion by mouse peritoneal Mo (macrophages) and bone marrow cells in vitro upon stimulation with various biological response modifiers (BRM) is presented. Optimal induction of CSF secretion occurred after in vitro treatment of peritoneal Mo and mononuclear bone marrow cells with 50 .mu.g/ml poly(I:C)-poly-L-lysine-CM-***cellulose*** complex (ICLC), 5 .mu.g/ml lipopolysaccharide (LPS) or 500 U/ml interferon (IFN.alpha.,.beta.) for 2 days. The in vitro stimulation of CSF secretion was paralleled by an increase in PGE secretion by Mo and bone marrow cells. PGE secretion could be selectively blocked by preincubating the cells for 3 h with indomethacin (10-7 M), leaving CFS production intact. In vivo treatment of mice with maleic anhydride divinyl ether copolymer (MVE-2; 25 mg/kg)or ICLC (2 mg/kg) significantly increased levels of CSF in serum, and in culture supernatants of in vivo-treated peritoneal Mo and bone marrow cells. The increase in serum CSF levels and in secretion of CSF by peritoneal Mo and bone marrow cells was followed by a dose-dependent increase in GM-CFU-C in nucleated bone marrow cells, and in peripheral blood leukocytes. These BRM also stimulated the secretion of PGE by in vivo-activated peritoneal Mo, but not by bone marrow cells. Pretreatment of the mice with indomathacin (4 mg/kg) almost completely suppressed PGE secretion by peritoneal Mo, but did not change the CSF secretion by peritoneal Mo or bone marrow cells and had no significant effect on bone marrow cellularity. Therefore, MVE-2 and ICLC, in addition to their immunomodulatory activity, can also have stimulatory effects on myelopoiesis, presumably mediated through secretion of CSF. Protection and/or restoration of bone marrow function could thus either provide the opportunity for more extensive chemotherapy or could increase the number of Mo effector cells available for activation against ***tumor*** targets.

L16 ANSWER 50 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1984:348654 BIOSIS
DOCUMENT NUMBER: BA78:85134
TITLE: ***TUMOR*** COLONY FORMATION FROM HUMAN SPONTANEOUS TUMORS IN A METHYL ***CELLULOSE*** MONO LAYER SYSTEM.
AUTHOR(S): NEUMANN H A; LOEHR G W; FAUSER A A
CORPORATE SOURCE: MED. KLINIK DER ALBERT-LUDWIGS-UNIV., HUGSTETTERSTR. 55, D-7800 FREIBURG I. BR., FRG.
SOURCE: RES EXP MED, (1984) 184 (3), 137-144.
CODEN: REXMAS. ISSN: 0300-9130.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB A ***methylcellulose*** monolayer system is described that facilitates the in vitro cultures of human spontaneous ***tumor*** cells. The ***tumor*** samples were disaggregated mechanically and cultured in 0.9% ***methylcellulose*** with 30% fetal calf serum in Iscove's modified Dulbecco's medium. A total of 85 individual ***tumor*** samples with different histologial types were seeded; 45 gave rise to ***tumor*** cell colonies. The plating efficiency ranged from 0.02-0.22%. Cytologic and cytochemical staining from aspirated cells revealed the same morphology of cells as the cells in the suspensions. A flattening of colonies, as it has been described by others using ***methylcellulose*** monolayer, was not observed.

L16 ANSWER 51 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1985:252870 BIOSIS
DOCUMENT NUMBER: BA79:32866
TITLE: EVALUATION OF TRANSCATHETER HEPATIC ARTERIAL EMBOLIZATION WITH GELFOAM AND MICROENCAPSULATED MITOMYCIN C FOR HEPATIC NEOPLASMS.
AUTHOR(S): ITOH S; FURUKAWA M; NAKATA T; YAMADA R; MAEDA S; MORINAGA T; MORI H; AMAMOTO Y; FUJII H; IWANAGA Y
CORPORATE SOURCE: DEP. SURGERY, NAGASAKI CHUO NATIONAL HOSP.
SOURCE: NAGASAKI IGAKKAI ZASSHI, (1984) 59 (1), 25-30,3-4.
CODEN: NAGZAC. ISSN: 0369-3228.
FILE SEGMENT: BA; OLD
LANGUAGE: Japanese
AB Mitomycin C (MMC) was microencapsulated with ***ethylcellulose***

ratio of MMC and ***ethylcellulose*** was 70: 30 (% wt/wt). Size of the capsule was 177-250.mu.m. The release ratio of MMC from capsules was 35 % at 6 h and 65% at 24 h. Two patients with hepatocellular carcinoma and 4 patients with metastatic hepatic ***tumor*** from colorectal ***cancer*** were treated by transcatheter hepatic arterial embolization with gelfoam and encapsulated mitomycin C (TAE with M-mic). TAE with M-mic was effective in 5 of 6 cases. The ***tumor*** tissue in 1 case had still retained biologically active MMC 44 days after TAE with M-mic, but MMC could not be detected in the normal tissue. ***Cancer*** cells have tended to remain viable without the center of the ***tumor*** after TAE. TAE with M-mic might solve this problem.

L16 ANSWER 52 OF 87 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 83216443 MEDLINE
DOCUMENT NUMBER: 83216443
TITLE: The effect of different agars, agaroses and methyl ***cellulose*** on the in vitro proliferation of a human urinary transitional cell carcinoma cell line.
AUTHOR: Pavlik E J; Flanigan R C; van Nagell J R Jr; Swanson L; Keaton K; Kenady D E
SOURCE: JOURNAL OF UROLOGY, (1983 Jun) 129 (6) 1254-7.
Journal code: KC7. ISSN: 0022-5347.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals; Cancer Journals
ENTRY MONTH: 198309
AB The effects of different agars (Bacto-agar and deoxycholate lactose agar), agaroses (LE, ME, Sea Plaque and Sea Prep 15/45) and methyl ***cellulose*** on the growth of a human ***tumor*** cell line, derived from a transitional cell carcinoma of the urinary bladder, were examined. The overall growth in the presence of agars and agarose was generally less than in liquid medium alone. In contrast, growth in the presence of methyl ***cellulose*** was significantly enhanced. Thus, methyl ***cellulose*** may be a useful agent for optimizing the proliferation of primary tissue cultures prepared from human transitional cell carcinomas.

L16 ANSWER 53 OF 87 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 83264152 MEDLINE
DOCUMENT NUMBER: 83264152
TITLE: The proliferation of human ***tumor*** cell lines in the presence of different agars, agaroses, and methyl ***cellulose*** .
AUTHOR: Pavlik E J; Kenady D E; Van Nagell J R; Keaton K; Donaldson E S; Hanson M B; Flanigan R C
SOURCE: IN VITRO, (1983 Jul) 19 (7) 538-50.
Journal code: GHD. ISSN: 0073-5655.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198311
AB Human ***tumor*** cell lines, derived from cancers of the colon, ovary, and cervix, were grown in liquid tissue culture media and media made semisolid with agar (Bacto + deoxycholate lactose agar), agarose [LE, ME, Sea Plaque and Sea Prep (15/45)], and methyl ***cellulose*** . The effects of each agent on overall cell proliferation and rate of overall cell proliferation were examined. The agents, used to make media semisolid, were observed to inhibit or, in some cases, enhance cell growth in a fashion that was characteristic of individual cell lines. These phenomena may be of consequence to the optimization of nutrient media for primary ***tumor*** cell preparations.

L16 ANSWER 54 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1984:316756 BIOSIS
DOCUMENT NUMBER: BA78:53236
TITLE: ENHANCEMENT OF ADRIAMYCIN TOXICITY BY CARBOXYMETHYL ***CELLULOSE*** IN MICE.
AUTHOR(S): DECORTI G; KLUGMANN F B; MALLARDI F; BROVEDANI R; BALDINI G; BALDINI L
CORPORATE SOURCE: INST. PHARMACOL., UNIV. TRIESTE, TRIESTE, ITALY.
SOURCE: TOXICOL APPL PHARMACOL, (1983) 71 (2), 288-293.
CODEN: TXAPA9. ISSN: 0041-008X.

FILE SEGMENT: BA; OLD
LANGUAGE: English
AB ***Carboxymethylcellulose*** (CMC) (1% in 0.95 NaCl, 0.2 ml/10 g i.p.) a common suspending agent, enhanced adriamycin (ADR) (15 mg/kg i.p.) toxicity when administered to mice 5 h before ADR [an antitumor antibiotic]. Compared with ADR alone, this combination treatment produced, after 7 days, an increase in lethality from 15-80%. The pathologic analysis of hearts, livers, kidneys and small bowels was performed, revealing an increase in the incidence and severity of hepatic damage in mice receiving ADR + CMC. Reduced glutathione (GSH) was measured in livers of all mice; the animals treated with CMC and ADR + CMC showed a significant ($P < 0.01$) reduction of hepatic GSH in comparison with controls and ADR-alone-treated animals. A crucial protective role for GSH in ADR toxicity was confirmed. CMC exerts an important biochemical effect on hepatic GSH.

L16 ANSWER 55 OF 87 MEDLINE
ACCESSION NUMBER: 83161245 MEDLINE
DOCUMENT NUMBER: 83161245
TITLE: Correlation of ***tumor*** -cell growth in four semisolid systems.
AUTHOR: Pavelic Z P; Nowak N J; Slocum H K; Rustum Y M
CONTRACT NUMBER: CA-21071 (NCI)
CA-13038 (NCI)
CA-24538 (NCI)
SOURCE: JOURNAL OF CANCER RESEARCH AND CLINICAL ONCOLOGY, (1983) 105 (1) 94-7.
Journal code: HL5. ISSN: 0171-5216.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198307
AB The correlation of the colony growth of cells disaggregated from human melanoma, sarcoma, lung, and ovarian carcinomas were studied in four different semisolid tissue culture assays: (a) the soft agar assay of Pluznik and Sachs; (b) the soft agar assay of Hamburger and Salmon; (c) the soft agar-methyl ***cellulose*** assay of Buick et al.; and (d) the methyl ***cellulose*** assay of Ogawa et al. There was no colony growth of ***tumor*** cells achieved in 15 of 15 cases assayed in Ogawa's methyl ***cellulose*** assay. The plating efficiency of the above mentioned tumors was similar in the assays of Pluznik and Sachs, Hamburger and Salmon, and Buick et al. However, the ***tumor*** take rate differed among these three systems. The assay of Buick et al. appears potentially useful for analysis of the biology of human tumors.

L16 ANSWER 56 OF 87 MEDLINE
ACCESSION NUMBER: 83054611 MEDLINE
DOCUMENT NUMBER: 83054611
TITLE: [Effect of ethylmethane sulfonate on the expression of one of the traits of malignancy by cultured mouse cells]. Vliianie etilmetansul'fonata na ekspressiiu odnogo iz priznakov malignizatsii kul'tiviruemymi kletkami myshi.
AUTHOR: Stavrovskaia A A; Stromskaia T P; Brodskaia R M
SOURCE: GENETIKA, (1982 Sep) 18 (9) 1489-93.
Journal code: FNN. ISSN: 0016-6758.
PUB. COUNTRY: USSR
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198303
AB The influence of ethyl methane sulfonate (methane sulfonic acid ethyl esther, EMS) on anchorage independence of ***tumor*** cells was studied. Mouse near-diploid spontaneously transformed clonal fibroblasts (CAK-25Agr were used. They were characterized by a stable low cloning efficiency in 1,2% methyl ***cellulose*** ((3-5) . 10(-5) per cell seeded into a semi-solid medium). EMS enhanced the quantity of CAK-25Agr colonies grown in methyl ***cellulose*** . However, this enhancement was only obtained when correction on the cloning efficiency of the cells in a liquid medium was introduced. Subclones of CAK-25Agr isolated from methyl ***cellulose*** were studied for their ability to form colonies in the semi-solid medium. The number of subclones with elevated anchorage independence in cultures treated by a mutagen and in untreated cultures did not differ.

L16 ANSWER 57 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1984:188008 BIOSIS
DOCUMENT NUMBER: BA77:20992
TITLE: ELEVATION OF COLONY STIMULATING FACTORS IN MOUSE SERUM AFTER INJECTION OF PSK KRESTIN AN ANTI ***TUMOR*** POLY SACCHARIDE.
AUTHOR(S): SATOH M; ICHIMURA O; MITSUNO T; KOJIMA E; OSAWA T
CORPORATE SOURCE: DIV. CHEM. TOXICOL. IMMUNOCHEM., FAC. PHARM. SCI., UNIV. TOKYO, BUNKYO-KU, TOKYO 113, JPN.
SOURCE: J PHARMACOBIO-DYN, (1982) 5 (10), 818-828.
CODEN: JOPHDQ. ISSN: 0386-846X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The level of colony stimulating factors (CSF) in mouse serum was elevated by a single i.p. injection of PSK, a host-mediated antitumor protein-bound polysaccharide obtained from Basidiomycetes. The assay for CSF activity was performed by employing a semisolid ***methylcellulose*** culture method using mouse bone marrow cells; the activity was estimated by an equation well matched with the dose response curve obtained in the CSF assay. A temporary increase of CSF activity within 10 h after the injection of 250-1000 mg/kg PSK was followed by a fast decline in the activity; no significant increases were detected in the cases of 62.5 and 125 mg/kg PSK injections. The CSF activity in 500 mg/kg PSK treated mouse serum was separated into 2 active fractions by DEAE ***cellulose*** ion-exchange chromatography; both fractions induced colonies comprised of cells with the properties of macrophages with regard to morphology, cytochemistry of nonspecific esterase, phagocytic function and expression of Fc receptors on the cell surface. The elevation of the serum CSF level due to administration of so-called host-mediated antitumor agents might be one of the ***tumor*** defense mechanisms in vivo.

L16 ANSWER 58 OF 87 MEDLINE
ACCESSION NUMBER: 83108048 MEDLINE
DOCUMENT NUMBER: 83108048
TITLE: Transcatheter microembolization with ferropolysaccharide. A new approach to ferromagnetic embolization of tumors: preliminary report.
AUTHOR: Sako M; Yokogawa S; Sakomoto K; Adachi S; Hirota S; Okada S; Murao S
SOURCE: INVESTIGATIVE RADIOLOGY, (1982 Nov-Dec) 17 (6) 573-82.
Journal code: GWK. ISSN: 0020-9996.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198305
AB A new embolic material has been devised to improve the therapeutic effect of ferromagnetic embolization upon tumors. Iron sponge microspheres (diameter 10-30 mu) were suspended in viscous, aqueous polysaccharide solution, dextran 40, and sodium carboxymethyl ***cellulose*** (Ferro-polysaccharide, FPS). Transcatheter embolization with FPS was performed under external magnetic control (2,800 gauss) in dog kidneys and VX2 carcinomas of rabbits, causing widespread, intraparenchymal vascular occlusion of target vessels. Neither recanalization nor collateral circulation was found to the infarcted areas, and the embolized tumors had extensive necrosis with resultant ***tumor*** regression. No significant untoward reaction or other undesirable embolization was noted serologically or histologically, even after intravenous administration of FPS. Clinical application to two patients, one with a hepatoma and the other with a renal cell carcinoma, resulted in excellent ***tumor*** infarction with no significant side effects.

L16 ANSWER 59 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1982:503984 CAPLUS
DOCUMENT NUMBER: 97:103984
TITLE: Interferon induction and therapy of brain tumors in rats by poly(ICLC)
AUTHOR(S): Machida, Haruhiko; Takezawa, Junichi; Kuninaka, Akira; Yoshino, Hiroshi; Nakamura, Osamu; Takakura, Kintomo
CORPORATE SOURCE: Res. Lab., Yamasa Shoyu Co. Ltd., Choshi, 288, Japan
SOURCE: Microbiol. Immunol. (1982), 26(4), 353-8
CODEN: MIIMDV
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The levels of plasma interferon in rats 4 h after injection of several

doses (0.05-5 mg/kg) of poly(ICLC)-B or -C [poly(I).cntdot.poly(C) stabilized with varying amts. of poly-L-lysine-***carboxymethylcellulose*** [59789-29-6]] were the same as those in rats receiving equal doses of poly(I).cntdot.poly(C) [24939-03-5]. (The amt. of inducer is expressed in terms of poly(I).cntdot.poly(C) content of each prepn.). However, the interferon level of plasma persisted for a longer time in rats injected with poly(ICCL)-B than in those injected with just poly(I).cntdot.poly(C). Treatment with poly(ICLC)-B (i.v.) was moderately effective in increasing the survival time of rats inoculated intracerebrally with glial ***tumor*** cells when the treatment was started by 7 days after ***tumor*** cell inoculation. Thus, the antitumor activity of poly(ICLC)-B is correlated with persistence of the high level of interferon induced thereby, and, probably also with the immune adjuvant activity of poly(ICLC).

L16 ANSWER 60 OF 87 MEDLINE DUPLICATE 10
ACCESSION NUMBER: 82231700 MEDLINE
DOCUMENT NUMBER: 82231700
TITLE: Effect of interferon inducer (poly ICLC) in the treatment of malignant brain ***tumor*** (author's transl).
AUTHOR: Nakamura O; Shitara N; Matsutani M; Takakura K; Machida H
SOURCE: NO TO SHINKEI. BRAIN AND NERVE, (1982 Mar) 34 (3) 267-73. Journal code: AR5. ISSN: 0006-8969.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198211
AB Interferon inducing activity, antitumor activity and toxicity of poly ICLC (poly IC stabilized with poly L-Lysine and carboxymethyl ***cellulose***) in rodents were studied. SD strain rats were injected intravenously with poly IC or poly ICLC. Interferon in rat plasma was assayed by a plaque reduction method using stomatitis virus. The peak level of plasma interferon of the poly ICLC injection rat was as high as that of poly IC injection rat, and in the former, high level of plasma interferon persisted for 4-12 hours. Next, brain ***tumor*** -bearing rats were treated intravenously with poly ICLC and observed for death daily. Weekly treatment with 1 mg/kg of poly ICLC increased the mean survival time although no antitumor effect was observed with poly IC. The LD 50 value of poly IC was 33.5 mg/kg, and that of poly ICLC was 18.6 mg/kg and as to poly ICLC administration, no remarkable side effect was recognized below the dose of 1.5 mg/kg. In clinical trials, poly ICLC was given intravenously at the dose of 0.05-0.2 mg/kg to 9 patients with malignant brain ***tumor*** . (6 patients were glioblastoma, 1 was astrocytoma, and 2 were ependymoma.) In 2 patients, poly ICLC was administered once, in 2 patients twice, in 2 patients 3 times, and in 3 patients more than 5 times. The interval of each administration was 7 days. Poly ICLC induced high level of serum interferon (more than 100 reference unit/ml) in all patients and over 100 unit/ml of interferon was maintained for 24 hours. The highest interferon titer induced was 875 unit/ml. The most frequently encountered toxic reaction was fever, which occurred in all cases. The mean peak temperature elevation was 1.9 degrees C, which usually occurred 4-8 hours after drug administration. Modest hypotention was detected in one case. Leucopenia was detected in 3 cases. These abnormalities were all modest, and improved in a few days. As to the effect of poly ICLC, neurological improvement was recognized in 3 cases, and in one of them, remission on CT scan was also recognized.

L16 ANSWER 61 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:278391 BIOSIS
DOCUMENT NUMBER: BA72:63375
TITLE: ANCHORAGE INDEPENDENT GROWTH OF NORMAL HUMAN FIBROBLASTS.
AUTHOR(S): PEEHL D M; STANBRIDGE E J
CORPORATE SOURCE: DEP. MICROBIOL., COLL. MED., UNIV. CALIF., IRVINE, CA 92717.
SOURCE: PROC NATL ACAD SCI U S A, (1981) 78 (5), 3053-3057. CODEN: PNASA6. ISSN: 0027-8424.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Normal human fibroblasts, considered to be entirely anchorage dependent for proliferation, have been grown in ***methylcellulose*** medium. The most important factor required for growth in suspension appears to be the use of high levels of serum and hydrocortisone. Newborn foreskin [HF1031, HF0814, HF1010 and HF0813] or fetal lung fibroblasts (GM2291] form colonies as large as 0.5 mm in diameter after 3 wk, with a

colony-forming efficiency as high as 70%. Mouse 3T3 cells that do not form colonies in standard assays for anchorage-independent growth also grow under these conditions. Colony formation results after inoculation of as few as 100 cells/60 mm dish, and metaphase cells have been visualized with a fluorescent DNA stain, showing that colony formation is due to division rather than aggregation. Fibroblasts recovered from suspension and grown as monolayers retain a diploid karyotype and normal shape, do not form tumors upon injection into nude mice, and become senescent. Thus, the trait of anchorage-independent growth in vitro is clearly possessed by normal human fibroblasts and can be expressed under the proper conditions. [Also used in this study were: human cervical carcinoma HeLa D98OR cells; nontumorisenic fibroblast HeLa D98OR hybrid HSH5 cell and the tumorogenic SH5 segregant SH5T cell.]

L16 ANSWER 62 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1982:253690 BIOSIS
DOCUMENT NUMBER: BA74:26170
TITLE: AN APPROACH TO MAGNETICALLY CONTROLLED ***CANCER*** CHEMO THERAPY 5. PREPARATION PROPERTIES AND PHARMACO KINETICS OF MICRO CAPSULES ENCASED WITH MAGNETIC PARTICLES AND MITOMYCIN C.
AUTHOR(S): KATO T; NEMOTO R; MORI H; ABE R; UNNO K; GOTO A; MUROTA H; HARADA M; KAWAMURA K; HOMMA M
CORPORATE SOURCE: DEP. UROL., AKITA UNIV. SCH. MED.
SOURCE: J JPN SOC CANCER THER, (1981 (RECD 1982)) 16 (7), 1351-1357.
CODEN: NGCJAK. ISSN: 0021-4671.
FILE SEGMENT: BA; OLD
LANGUAGE: Japanese
AB A new type of ferromagnetic microcapsules encasing the anticancer drug (mitomycin C) and ferrite particles within an ***ethylcellulose*** capsule was prepared; its pharmaceutical properties were compared with those of the previously prepared ferromagnetic microcapsules to which the ferrite particles were externally attached. This type of microcapsule had a relatively smooth surface and could vary the drug-ferrite ratio in a certain range, thus increasing the magnetization and the slow-release property. The materials of the microcapsules injected into the peritoneal cavity of the rat produced no toxic action. Magnetically controlled intravesical microcapsules enhanced drug absorption into the bladder tissue. The feasibility and effectiveness of magnetically controlled ***cancer*** chemotherapy was suggested.

L16 ANSWER 63 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:247668 BIOSIS
DOCUMENT NUMBER: BA72:32652
TITLE: ARTERIAL CHEMO EMBOLIZATION WITH MICRO ENCAPSULATED ANTI ***CANCER*** DRUG AN APPROACH TO SELECTIVE ***CANCER*** CHEMO THERAPY WITH SUSTAINED EFFECTS.
AUTHOR(S): KATO T; NEMOTO R; MORI H; TAKAHASHI M; TAMAKAWA Y; HARADA M
CORPORATE SOURCE: DEP. UROL., AKITA UNIV. SCH. MED., 1-1-1 HONDO, AKITA 010, JPN.
SOURCE: JAMA (J AM MED ASSOC), (1981) 245 (11), 1123-1127.
CODEN: JAMAAP. ISSN: 0002-9955.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Selective intra-arterial infusion of ***ethylcellulose*** microcapsules containing mitomycin exerts its therapeutic effects through infarction and sustained drug action, i.e., chemoembolization. Sixty primary or secondary carcinomas in the kidney, liver, urinary bladder, prostate, cervix, vagina, sigmoid colon, Douglas' pouch and bone were treated with single or repeated chemoembolizations using microcapsules delivered through percutaneous catheterization as a preoperative or palliative measure. Substantial ***tumor*** reduction of > 30% in measurable maximum diameter was found in 65% of the tumors; pain relief occurred in 80% and hemostasis in 100%. Preoperative chemoembolization remarkably facilitated radical surgery in 18 (82%) of 22 patients. The summed response rate was 77%. Systemic toxic effects were mild; all patients tolerated the treatment. Though the follow-up periods are < 2 yr, 37 patients are alive with or without ***tumor*** .

L16 ANSWER 64 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1982:158961 BIOSIS
DOCUMENT NUMBER: BA73:18945
TITLE: THE COMPARISON OF IN-VITRO AND IN-VIVO EFFECTS OF PHOSPHO DI ESTERASE INHIBITORS PROSTAGLANDIN I-2 RELEASERS ON

GRANULOPOIESIS.
AUTHOR(S): GARDNER R V; TEBBI C K; AMBRUS J L
CORPORATE SOURCE: ROSWELL PARK MEMORIAL INST., 666 ELM ST., BUFFALO, NY 14263.
SOURCE: J MED (WESTBURY), (1981) 11 (5-6), 361-376.
CODEN: JNMDBO. ISSN: 0025-7850.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Semi-solid culture techniques provide a useful means for studying the sensitivity of granulopoietic progenitors exposed to various chemotherapeutic agents. The effects of 2 phosphodiesterase inhibitors-PGI2 releasers, pentoxifylline and RA-233 [2,6-bis-(diethanolamino)-4-piperido-pyrimido-(5,4-di-pyrimidine)], on C57/BJ mouse bone marrow cells were examined, and the results were compared with their in vivo administration. Preliminary experiments revealed a protective effect of these drugs against the development of metastases, and the potentiation of cAMP, resulting in increased differentiation of certain ***tumor*** cells. In the ***methylcellulose*** system, by pulsing or constant incubation of these agents using murine bone marrow cells as a target, no inhibitory effect on granulocyte-macrophage colony-forming units in culture (G-M CFU-C) was evident with low dosage of either drug. Steady decline in in vitro granulopoiesis became apparent with increasing concentrations. Injection of pentoxifylline into C57/BJ mice caused a decline in the number of leukocytes and absolute neutrophil count with a nadir in 7 days. This effect was similar to that found in vitro. In vivo decline was followed by a rapid recovery of myelopoiesis. These experiments indicate that marrow culture in the ***methylcellulose*** system can be used as an appropriate screening test for detection of myelotoxicity of various chemotherapeutic agents prior to their phase I clinical trial. The system allows direct and quantitative examination of patient's marrow cells in order to detect their sensitivity or resistance to a given drug. Based on these studies, phosphodiesterase inhibitors have minimal myelosuppressive effects.

L16 ANSWER 65 OF 87 MEDLINE DUPLICATE 11
ACCESSION NUMBER: 82141233 MEDLINE
DOCUMENT NUMBER: 82141233
TITLE: Immune response modifying activity in mice of polyinosinic: polycytidylic acid stabilized with poly-L-lysine, in ***carboxymethylcellulose*** [poly-ICLC].
AUTHOR: Chirigos M A; Papademetriou V; Bartocci A; Read E; Levy H B
SOURCE: INTERNATIONAL JOURNAL OF IMMUNOPHARMACOLOGY, (1981) 3 (4) 329-37.
Journal code: GRI.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198207
AB Poly-ICLC, a polyinosinic: polycytidylic acid stabilized with poly-L-lysine in carboxymethyl- ***cellulose*** was tested in mice for its immunoregulatory activity. Poly-ICLC was found to enhance T cell responsiveness but not B cells. It augmented the delayed type hypersensitivity response significantly. The results indicate Poly-ICLC to be a T cell stimulator. Macrophage tumoricidal activity was markedly enhanced both in vitro and in vivo after exposure to Poly-ICLC. Natural killer cell cytotoxicity was significantly augmented in vivo. Both macrophage and natural killer cell activity was maintained for over 3 days after only one treatment. The extended period of ***tumor*** cell cytotoxicity, exhibited by macrophages and natural killer cells, may correlate to Poly-ICLC induction of early and high levels of interferon which are maintained in the serum for a longer period of time.

L16 ANSWER 66 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:297329 BIOSIS
DOCUMENT NUMBER: BA72:82313
TITLE: EXPERIMENTAL INTRA ARTERIAL INFUSION OF MICRO ENCAPSULATED MITOMYCIN C INTO PELVIC ORGANS.
AUTHOR(S): NEMOTO R; KATO T
CORPORATE SOURCE: DEP. OF UROLOGY, AKITA UNIV. SCHOOL OF MED., 010 AKITA, JAPAN.
SOURCE: BR J UROL, (1981) 53 (3), 225-227.
CODEN: BJURAN. ISSN: 0007-1331.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Laboratory experience with the use of [the antineoplastic drug] mitomycin C encased in ***ethylcellulose*** microcapsules as an agent for transcatheter embolization is described. Microencapsulated mitomycin C (MMC-m.c.) was infused into the pelvic organs of dogs by arterial catheterization; the distribution of MMC in plasma and tissue was examined. MMC levels in the circulating blood of the MMC-m.c. group were significantly lower than those of the non-encapsulated MMC group. The biological potential of MMC was retained for prolonged periods in the pelvic organs after intra-arterial infusion of MMC-m.c. MMC was not detected in the tissue of the non-encapsulated MMC group 4 h after the infusion. [Transcatheter embolization of the blood vessels supplying a malignant ***tumor*** is useful in the management of patients with urological ***cancer*** .]

L16 ANSWER 67 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:176881 BIOSIS
DOCUMENT NUMBER: BA71:46873
TITLE: AN APPROACH TO MAGNETICALLY CONTROLLED ***CANCER*** CHEMO THERAPY 1. PREPARATION AND PROPERTIES OF FERRO MAGNETIC MITOMYCIN C MICRO CAPSULES.
AUTHOR(S): KATO T; NEMOTO R; MORI H; UNNO K; GOTO A; HOMMA M
CORPORATE SOURCE: DEP. UROL., AKITA UNIV. SCH. MED.
SOURCE: J JPN SOC CANCER THER, (1980) 15 (5), 876-880.
CODEN: NGCJAK. ISSN: 0021-4671.
FILE SEGMENT: BA; OLD
LANGUAGE: Japanese
AB Responding to necessity of selective ***cancer*** chemotherapy, the possibility of magnetic control of anticancer drugs was proposed. For this purpose, the ferromagnetic mitomycin C microcapsules (FM-MMC-m.c.) were successfully prepared. FM-MMC-m.c. consisted of 50% (w/w [weight/weight]) active MMC as the core, 34% ***ethylcellulose*** and 16% iron-zinc ferrite as the shell. The mean particle size was 308 .mu.m; FM-MMC-m.c. could be delivered through an 18 G [gauge] needle. In vitro assays [using Escherichia coli] indicated that FM-MMC-m.c. had a sustained-release property and sensitively responded to a magnetic force of approximately 700 Oe [oersted]. FM-MMC-m.c. probably can be applied to magnetically controlled ***cancer*** chemotherapy.

L16 ANSWER 68 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:155438 BIOSIS
DOCUMENT NUMBER: BA71:25430
TITLE: GENETIC ANALYSIS OF TUMORIGENESIS 6. CHROMOSOME REARRANGEMENTS IN TUMORS DERIVED FROM DI PLOID PRE MALIGNANT CHINESE HAMSTER CELLS IN NUDE MICE.
AUTHOR(S): KITCHIN R M; SAGER R
CORPORATE SOURCE: SIDNEY FARBER CANCER INSTITUTE, 44 BINNEY STREET, BOSTON, MASSACHUSETTS 02115.
SOURCE: SOMATIC CELL GENET, (1980) 6 (5), 615-630.
CODEN: SCGTDW. ISSN: 0098-0366.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The chromosome constitution of CHEF/16 [Chinese hamster embryo fibroblast cells] clones recovered from ***methylcellulose*** and of uncloned, ***tumor*** -derived CHEF/16 populations are compared. Of 11 clones recovered from ***methylcellulose*** , 9 were initiated by diploid cells. Chromosomally diploid cells were still present in most CHEF/16 clones even after growth in anchorage-independent conditions. None of the CHEF/16 cells recovered from tumors were diploid. Nonrandom chromosome changes were observed, but no specific chromosome alterations were consistently found in ***tumor*** -derived CHEF cells. Although CHEF/16 cells are uniformly tumorigenic in nude mice, each of 10 uncloned ***tumor*** -derived populations from inocula of 102, 104 and 106 CHEF/16 cells consisted of only 1-3 stemlines. Diploid CHEF/16 cells are premalignant and undergo karyotypic changes leading to successful and usually clonal establishment of tumors in nude mice.

L16 ANSWER 69 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:175132 BIOSIS
DOCUMENT NUMBER: BA71:45124
TITLE: A NEW AND SIMPLE TECHNIQUE FOR CHROMOSOMAL PREPARATIONS FROM PERIPHERAL BLOOD LYMPHOCYTES AMNIOTIC CELL CULTURES SKIN FIBROBLASTS BONE MARROW AND SINGLE CELL CLONES WHEN THE YIELDS FROM HARVESTS ARE LOW.
AUTHOR(S): RAJENDRA B R; SCIORRA L J; LEE M-L
CORPORATE SOURCE: DIV. MED. GENET., DEP. PEDIATR., RUTGERS MED. SCH., HOES

LANE, PISCATAWAY, N.J. 08854, USA.
SOURCE: HUM GENET, (1980) 55 (3), 363-366.
CODEN: HUGEDQ. ISSN: 0340-6717.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB A technique for chromosomal preparations from low yields harvests is presented using Poly-L-lysine (300,000-400,000 MW). The procedure can be successfully used for [human] peripheral blood lymphocytes, amniotic cell cultures, skin fibroblasts, direct preparations from bone marrow, cloned clusters and colonies from bone marrow grown on agar or ***methylcellulose*** and (rat) eggs and blastocysts, with applications to other tissues. The technique is simple with minimal cell loss, and chromosomal preparations of good quality can be obtained which are amenable to all banding techniques. [Solid ***tumor*** cells can also be cultured and harvested using this new technique].

L16 ANSWER 70 OF 87 MEDLINE DUPLICATE 12
ACCESSION NUMBER: 80222474 MEDLINE
DOCUMENT NUMBER: 80222474
TITLE: Sustained-release properties of microencapsulated mitomycin C with ***ethylcellulose*** infused into the renal artery of the dog.
AUTHOR: Kato T; Nemoto R; Mori H; Kumagai I
SOURCE: CANCER, (1980 Jul 1) 46 (1) 14-21.
Journal code: CLZ. ISSN: 0008-543X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198011
AB Mitomycin C (MMC) was microencapsulated with ***ethylcellulose*** . The microcapsules contained, on average, 80% of biologically active MMC and had a sustained-release property. The mean particle size was 224 micrometers so that the microcapsules were readily infused into a canine kidney through arterial catheterization. Ex vivo infusion demonstrated that the microcapsules lodged in the small arteries, mainly at the cortico-medullary junction, and released concentrated MMC into the surrounding tissue. In vivo experiments revealed that the canine kidneys infused with the microcapsules retained active MMC for more than 6 hours and showed extensive necrosis five days after the infusion. The kidneyks infused with nonencapsulated MMC rapidly excreted MMC and showed mild histologic changes. The blood level of MMC released from the intrarenal microcapsules was markedly reduced as compared with control levels. The results suggest that the potential therapeutic effect of intraarterial infusion of MMC microcapsules is a function of embolization and prolonged drug action, and that selective infusion of MMC microcapsules into ***tumor*** -supplying arteries could facilitate intensive topical chemotherapy with minimum systemic side-effects.

L16 ANSWER 71 OF 87 MEDLINE
ACCESSION NUMBER: 80044766 MEDLINE
DOCUMENT NUMBER: 80044766
TITLE: Development of an agar-methyl ***cellulose*** clonogenic assay for cells in transitional cell carcinoma of the human bladder.
AUTHOR: Buick R N; Stanisic T H; Fry S E; Salmon S E; Trent J M; Krasovich P
SOURCE: CANCER RESEARCH, (1979 Dec) 39 (12) 5051-6.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198003
AB We report the development of a clonogenic assay for progenitor cells in transitional cell carcinoma of the bladder. Colony growth has been demonstrated from cells obtained both from surgical biopsies and from bladder barbotages. Electron microscopic and karyotypic evidence supports the contention that these progenitors represent a part of the population maintaining the ***tumor*** in vivo. Colony growth occurred in 9 of 11 surgical biopsy samples and in 6 of 6 bladder barbotage samples. Plating efficiency ranged up to 0.7%, and colony size was in some instances greater than 1000 cells. The assay appears potentially useful for analysis of the biology of human transitional cell carcinoma.

L16 ANSWER 72 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1979:246590 BIOSIS
DOCUMENT NUMBER: BA68:49094
TITLE: INITIAL CLINICAL TRIALS IN ***CANCER*** PATIENTS OF POLY RIBO INOSINIC-ACID POLY RIBO CYTIDYLIC-ACID STABILIZED WITH POLY-L LYSINE IN CARBOXYMETHYL ***CELLULOSE*** A HIGHLY EFFECTIVE INTERFERON INDUCER.
AUTHOR(S): LEVINE A S; SIVULICH M; WIERNIK P H; LEVY H B
CORPORATE SOURCE: PEDIATR. ONCOL. BRANCH, NATL. INST. HEALTH, ROOM 3B-12, BUILD. 10, BETHESDA, MD. 20014, USA.
SOURCE: CANCER RES, (1979) 39 (5), 1645-1650.
CODEN: CNREA8. ISSN: 0008-5472.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Polyriboinosinic-polyribocytidylic acid, stabilized with poly-L-lysine and poly(ICLC), resists hydrolysis by primate serum (unlike the parent compound), induces high levels of serum interferon and is effective in acute viral infections of subhuman primates. In a Phase I clinical trial, poly(ICLC) was given i.v. in 15 daily doses of 0.5-27.0 mg/m2 to 19 patients with various solid tumors and 6 patients with acute leukemia (ages 1-65). At least 3 complete trials were conducted at each of 6 dose levels. Toxic reactions included fever (in 100% of trials), nausea (44%), hypotension (28%), thrombocytopenia and leukopenia (68%), erythema (12%) and polyarthralgia plus myalgia (16%). Hypotension and arthralgia-myalgia related to dose level and/or magnitude of interferon induction, but other toxic manifestations did not. Poly(ICLC) induced significant serum interferon levels in 76% of trials, and the correlation between dose and peak interferon titer was linear. The maximum tolerated dose for all patients at a given drug dose was 12 mg/m2; at this dose, the mean peak interferon titer was 4473 reference units/ml, but myalgia and arthralgia were severe in at least 1/2 of the patients, and most had significant hypotension. At 27 mg/m2, 1 patient had acute renal failure. At high doses, i.v. poly(ICLC) also induces interferon in the CSF. One patient, a child with acute lymphocytic leukemia, had a complete remission after treatment with this compound. While this response cannot be assigned unambiguously, further trials in leukemia are warranted. Poly(ICLC), at a tolerable dose, is probably the 1st consistent inducer of high serum interferon levels in humans and should be studied in certain human viral infections.

L16 ANSWER 73 OF 87 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 79125849 MEDLINE
DOCUMENT NUMBER: 79125849
TITLE: Egg lectin of Rana japonica and its receptor glycoprotein of Ehrlich ***tumor*** cells.
AUTHOR: Sakakibara F; Kawauchi H; Takayanagi G; Ise H
SOURCE: CANCER RESEARCH, (1979 Apr) 39 (4) 1347-52.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197907
AB Egg lectin of Rana japonica, which specifically agglutinates transformed cells but does not agglutinate nontransformed cells and erythrocytes, has been isolated by gel filtration and successive ion-exchange chromatographies on diethylaminoethyl ***cellulose*** and ***carboxymethylcellulose*** columns and has been characterized as a homogeneous carbohydrate-free protein with a relative molecular weight of 13,500. The lectin, at a concentration of 1 microgram/0.1 ml, causes obvious cytoagglutination of various transformed and ***tumor*** cell. The receptor of the Erlich ascites ***tumor*** cells which inhibits the lectin-induced agglutination of the Ehrlich ascites ***tumor*** cells has been isolated and characterized. The receptor was solubilized from Ehrlich ascites carcinoma cells by treating a ***tumor*** cell suspension with insolubilized trypsin, and the solubilized receptor was isolated by gel filtration through Sephadex G-100, followed by ion-exchange chromatography on diethylaminoethyl ***cellulose*** . The receptor was identified as a homogeneous glycoprotein having about 25% carbohydrate. The receptor, at a concentration of 4 microgram/0.1 ml, completely inhibited the cytoagglutination of the Ehrlich carcinoma cells caused by three agglutination doses (about 3 microgram/0.1 ml) of the R. japonica lectin.

L16 ANSWER 74 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 14

ACCESSION NUMBER: 79201460 EMBASE
DOCUMENT NUMBER: 1979201460
TITLE: Immunotherapy of guinea pig line 10 hepatoma with nonliving BCG cells in aqueous medium.
AUTHOR: Bekierkunst A.; Goren M.B.
CORPORATE SOURCE: Lab. Med. Bacteriol., Hebrew Univ. Hadassah Med. Sch., Jerusalem, Israel
SOURCE: Infection and Immunity, (1979) 24/3 (817-820).
CODEN: INFIBR
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
016 Cancer
004 Microbiology
048 Gastroenterology
LANGUAGE: English
AB Killed BCG cells suspended in 1.5% ***carboxymethylcellulose*** cured guinea pigs with established line 10 tumors in a high percentage of cases. The bacterial preparation of BCG in ***carboxymethylcellulose*** displayed a stronger ***tumor*** regressive activity and the process of healing was accelerated when endotoxin from a rough (Re) strain of Salmonella typhimurium was added to the BCG bacilli.

L16 ANSWER 75 OF 87 MEDLINE
ACCESSION NUMBER: 79179209 MEDLINE
DOCUMENT NUMBER: 79179209
TITLE: Organ culture model for the study of HVH-II infections in carcinoma of the cervix.
AUTHOR: Tobin S M; Fish E N; Wilson W D; Papsin F R
SOURCE: OBSTETRICS AND GYNECOLOGY, (1979 May) 53 (5) 559-64.
Journal code: OC2. ISSN: 0029-7844.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 197909
AB An experimental model is described whereby human and monkey cervical tissues may be maintained as organ cultures for 21 and 40 days, respectively. Inclusion of sodium carboxymethyl ***cellulose*** in the culture medium prolongs the survival time of tissues considerably. The sequential cytologic changes associated with herpesvirus hominis type II (HVH-II) infection are reported. These changes are considered in relation to the possible causal role of HVH-II infection in cervical ***carcinogenesis*** .

L16 ANSWER 76 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1980:138324 BIOSIS
DOCUMENT NUMBER: BA69:13320
TITLE: STUDIES OF ALPHA PROTEIN IN HUMAN CELL CULTURES.
AUTHOR(S): HOLMERS R; MERCER G; MOHAMED N
CORPORATE SOURCE: THOMAS R. BROWN MEM. LAB., ALFRED I. DUPONT INST., P.O. BOX 269, WILMINGTON, DEL. 19899, USA.
SOURCE: IN VITRO (ROCKVILLE), (1979) 15 (7), 522-530.
CODEN: ITCSAF. ISSN: 0073-5655.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB .alpha.-Protein growth fraction (AGF) eliminates the 60-90 day adaptive phase required to establish actively growing cultures of [human cervical ***cancer***] HeLa, human heart, KB [oral epidermoid carcinoma] and other established cell lines in serum-free chemically defined medium A3. AGF is effective at less than 0.4 .mu.g/ml. HeLa cells were cultured in very simple media such as Eagle's basal medium. AGF may be adsorbed on glass or plastic flasks. Glass flasks treated with AGF retain full activity after washing with acetone and treatment with ethyl ether and chemically defined medium. Adsorbed AGF is destroyed by trypsin. AGF can detoxify protamines, polylysines or histones. It will reverse the aggregation response induced by adding complexes composed of ***carboxymethylcellulose*** (CMC) and basic proteins. Highly adsorptive AGF probably functions at the cell surface and is capable of modifying the response of the cell to its environment.

L16 ANSWER 77 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1980:239072 BIOSIS
DOCUMENT NUMBER: BA70:31568
TITLE: GENETIC ANALYSIS OF TUMORIGENESIS 4. CHROMOSOME REDUCTION

AND MARKER SEGREGATION IN PROGENY CLONES FROM CHINESE HAMSTER CELL HYBRIDS.
AUTHOR(S): SAGER R; KOVAC P E
CORPORATE SOURCE: SIDNEY FARBER CANCER INST., 44 BINNEY ST., BOSTON, MASS. 02115, USA.
SOURCE: SOMATIC CELL GENET, (1979) 5 (4), 491-502.
CODEN: SCGTDW. ISSN: 0098-0366.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Hybrid cells produced by the fusion of pairs of cells, one a tumorigenic derivative of CHEF/16 and the other a nontumorigenic derivative of CHEF/18, give rise to clones which are largely tetraploid, but rare reduced hybrids with chromosome counts in the diploid range have been recovered from tumors of hybrid origin. The recovery in cell culture of reduced hybrids in the diploid range by selection with 5-bromodeoxyuridine (BrdU) or ***methylcellulose*** and by growth in culture of cells from excised tumors is described. All selected subclones were tumorigenic and resistant to BrdU; they segregated for resistance to 6-thioguanine. Unselected subclones were tetraploid, nontumorigenic and sensitive to both drugs. Chromosome reassortment and extensive chromosome reduction apparently occur in a small fraction of the population during growth of each hybrid clone.

L16 ANSWER 78 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1980:170387 BIOSIS
DOCUMENT NUMBER: BA69:45383
TITLE: MALIGNANT BEHAVIOR OF 3 ADENOVIRUS TYPE 2 TRANSFORMED BRAIN CELL LINES AND THEIR METHYL ***CELLULOSE*** SELECTED SUB CLONES.
AUTHOR(S): GALLIMORE P H; MCDOUGALL J K; CHEN L B
CORPORATE SOURCE: DEP. CANCER STUD., MED. SCH., UNIV. BIRM., BIRMINGHAM B15 2TJ, ENGL., UK.
SOURCE: INT J CANCER, (1979) 24 (4), 477-484.
CODEN: IJCNAW. ISSN: 0020-7136.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Three adenovirus-2-transformed rat embryo brain cell lines and their ***methylcellulose*** -selected subclones were examined for fibeonectin expression, anchorage-independent growth, saturation density, T [***tumor***] antigen expression and morphology. Tumorigenicity studies were carried out on newborn and ATS [anti-thymocyte serum] immunosuppressed syngeneic rats and congenitally athymic nude mice. With 1 exception the ***methylcellulose*** sub-clones contained significantly fewer fibronectin-positive cells than the parent lines; a number of sub-clones contained no fibronectin-positive cells.
Methylcellulose selection did not always alter cell morphology, saturation density or anchorage-independent growth as compared with parent lines. The ***methylcellulose*** subclones were considerably more malignant than the parent cell lines as measured by invasion and metastasis in nude mice. No in vitro characteristic correlated with malignant behavior.

L16 ANSWER 79 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1981:155738 BIOSIS
DOCUMENT NUMBER: BA71:25730
TITLE: PREPARATION AND CHARACTERIZATION OF FERRO MAGNETIC MITOMYCIN C MICRO CAPSULES AS A MEANS OF MAGNETIC CONTROL OF ANTI ***CANCER*** DRUGS.
AUTHOR(S): KATO T; NEMOTO R; MORI H; UNNO K; GOTO A; HARADA M; HOMMA M
CORPORATE SOURCE: DEP. UROL., AKITA UNIV. SCH. MED., AKITA, JPN.
SOURCE: PROC JPN ACAD SER B PHYS BIOL SCI, (1979 (RECD 1980)) 55 (9), 470-475.
CODEN: PJABDW. ISSN: 0386-2208.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The antineoplastic drug mitomycin C can be microencapsulated with ***ethylcellulose*** ; when administered, this dosage form releases the encased drug over long periods of time in vivo and in vitro. Ferromagnetic mitomycin C microcapsules (FM-MMC) were prepared and characterized. FM-MMC can be released over a long period of time and can be conducted in the body by using an external magnetic field. Magnetic control of FM-MMC was tested in the blood stream of dogs and in the urinary bladder of rabbits.

L16 ANSWER 80 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1979:266164 BIOSIS

DOCUMENT NUMBER: BA68:68668
TITLE: CELLULAR TUMORIGENICITY IN NUDE MICE TEST OF ASSOCIATIONS AMONG LOSS OF CELL SURFACE FIBRONECTIN ANCHORAGE INDEPENDENCE AND ***TUMOR*** FORMING ABILITY.
AUTHOR(S): KAHN P; SHIN S-I
CORPORATE SOURCE: DEP. GENET., ALBERT EINSTEIN COLL. MED., BRONX, N.Y. 10461, USA.
SOURCE: J CELL BIOL, (1979) 82 (1), 1-16.
CODEN: JCLBA3. ISSN: 0021-9525.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Fibronectin (FN; also called large external transformation-sensitive [LETS] protein or cell-surface protein [CSP]) is a large cell-surface glycoprotein that is frequently observed to be either absent or greatly reduced on the surfaces of malignant cells grown in vitro. Because FN may be a useful molecular marker of cellular malignancy, the specific association among the degree of expression of FN, anchorage-independent growth, and tumorigenicity was tested in the athymic nude mouse. A variety of diploid cell strains and established cell lines were tested for the expression of surface FN by indirect immunofluorescence using rabbit antisera against human cold insoluble globulin, rodent plasma FN or chicken cell surface FN. Concomitantly, the cells were assayed for ***tumor*** formation in nude mice and for the ability to form colonies in ***methylcellulose*** . Tumorigenic cells often showed very low surface fluorescence, confirming earlier reports. Many highly tumorigenic fibroblast lines from several species stained strongly with all 3 antisera. The anchorage-independent phenotype was nearly always associated with tumorigenicity in .apprx. 35 cell lines examined in this study. In another series of experiments, FN-positive but anchorage-independent cells were grown as tumors in nude mice and then reintroduced into culture. In 5 of the 6 ***tumor*** -derived cell lines, cell surface FN was not significantly reduced. One such cell line showed very little surface FN. The loss of cell-surface FN apparently is not a necessary step in the process of malignant transformation. The growth of FN-positive cells as tumors does not require a prior selection in vivo for FN-negative subpopulations.

L16 ANSWER 81 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 79121144 EMBASE
DOCUMENT NUMBER: 1979121144
TITLE: Phase I-II trials of poly IC stabilized with poly-L-lysine.
AUTHOR: Levine A.S.; Levy H.B.
CORPORATE SOURCE: Clin. Oncol. Program, Div. Cancer Treatm., Nat. Cancer Inst., NIH, Bethesda, Md. 20014, United States
SOURCE: Cancer Treatment Reports, (1978) 62/11 (1907-1912).
CODEN: CTRRDO
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
016 Cancer
026 Immunology, Serology and Transplantation
LANGUAGE: English

AB Poly IC, stabilized with poly-L-lysine and carboxymethyl ***cellulose*** (poly ICLC), resists hydrolysis by primate serum (unlike the parent compound), induces high levels of serum interferon, and is effective in acute viral infections of subhuman primates. In a phase I-II clinical trial, poly ICLC was given iv in 15 daily doses of 0.5-27.0 mg/m2 to 19 patients with various solid tumors and to six patients with acute leukemia (1-65 years of age). At least three complete trials were conducted at each of six dose levels. Toxic reactions included fever (in 100% of trials), nausea (44%), hypotension (28%), thrombocytopenia and leukopenia (68%), erythema (12%), and polyarthralgia plus myalgia (16%). Hypotension and arthralgia-myalgia were related to dose level and/or magnitude of interferon induction, but other toxic manifestations were not. Poly ICLC induced significant serum interferon levels in 76% of trials, and the correlation between dose and peak interferon titer was linear. The maximum tolerated dose for all patients at a given drug dose was 12 mg/m2; at this dose, the mean peak interferon titer was 1940 reference units/ml. At a dose of 18 mg/m2, the mean peak interferon titer was 4473 reference units/ml, but severe myalgia and arthralgia were intolerable in at least half of the patients, and most had significant hypotension. At a dose of 27 mg/m2, one patient had acute renal failure. At high doses, iv poly ICLC also induces interferon in the cerebrospinal fluid.

L16 ANSWER 82 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 79001983 EMBASE
DOCUMENT NUMBER: 1979001983
TITLE: The relationship between membrane glycoprotein alterations and anchorage-independent growth in neoplastic transformation.
AUTHOR: Smets L.A.; Van Beek W.P.; Van Rooy H.; Homburg Ch.
CORPORATE SOURCE: Div. Cell Biol., Antoni Van Leeuwenhoek Lab., Netherlands Cancer Inst., Amsterdam, Netherlands
SOURCE: Cancer Biochemistry Biophysics, (1978) 2/4 (203-207).
CODEN: CABCB2
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 016 Cancer
LANGUAGE: English
AB Structural alterations in membrane glycoproteins and the capacity to grow in semisolid media were comparatively studied in transformed and untransformed mouse 3T3 cells. In tumors derived from established cell lines, ***tumor*** -specific alterations in membrane glycoprotein and an enhanced capacity of proliferation in methyl ***cellulose*** were simultaneously observed. In clonal variants selected for growth in methyl ***cellulose*** , however, the two parameters allegedly associated with tumorigenicity were uncorrelatedly expressed. The results suggest that anchorage-independence and alterations in membrane glycopeptides represent two qualitatively and temporally different changes in the progressive, multistep process of neoplastic transformation.

L16 ANSWER 83 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 79002162 EMBASE
DOCUMENT NUMBER: 1979002162
TITLE: Time-release depot for anticancer drugs: Release of drugs covalently bonded to polymers.
AUTHOR: Yolles S.
CORPORATE SOURCE: Univ. Delaware, Newark, Del., United States
SOURCE: Journal of the Parenteral Drug Association, (1978) 32/4 (188-191).
CODEN: JPDADK
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
016 Cancer
LANGUAGE: English
AB Composites containing poly-(lactic acid) and several anticancer agents, cis-dichlorodiammineplatinum (II), cyclo-phosphamide, and doxorubicin, have been prepared. The in vitro release of cis-dichlorodiammine platinum (II) was 50% of the dose over a 92 day test period. In the in vivo tests, a substantial improvement of the life span of mice, in comparison with the infection of plain cis-dichlorodiammine platinum was observed. In these composites the release rate is diffusion controlled. In other work the release of steroids which are covalently bonded to a modified ***cellulose*** background is described. Release is controlled by hydrolysis of the drug and diffusion out of the polymer matrix.

L16 ANSWER 84 OF 87 MEDLINE
ACCESSION NUMBER: 78130308 MEDLINE
DOCUMENT NUMBER: 78130308
TITLE: Lymphocyte transformation in ***cancer*** patients: variation in results according to technique.
AUTHOR: Gyte G M; Watkins S M
SOURCE: JOURNAL OF CLINICAL PATHOLOGY, (1978 Feb) 31 (2) 125-8.
Journal code: HT3. ISSN: 0021-9746.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 197807
AB Lymphocyte transformation to phytohaemagglutinin (PHA) was measured simultaneously by two methods (heparin and methyl ***cellulose***) in 16 patients with non-lymphoid ***cancer*** and 21 normal subjects. Twelve ***cancer*** patients showed transformation levels below the normal heparin range, but only two patients showed levels below the normal methyl ***cellulose*** range. These findings suggest that in interpreting lymphocyte transformation studies close attention should be given to the methods employed.

L16 ANSWER 85 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 78301276 EMBASE
DOCUMENT NUMBER: 1978301276
TITLE: Dietary fiber and fiber supplements in the therapy of gastrointestinal disorders.
AUTHOR: Dwyer J.T.; Goldin B.; Gorbach S.; Patterson J.
CORPORATE SOURCE: Francis Stearns Nutrit. Cent., New England Med. Cent. Hosp., Boston, Mass. 02111, United States
SOURCE: Journal of the Maine Medical Association, (1978) 69/2 (51-62).
CODEN: JMMAA7
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English

L16 ANSWER 86 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 77153922 EMBASE
DOCUMENT NUMBER: 1977153922
TITLE: ***Cancer*** induction in subcutaneously implanted bronchial autograft of a dog by 3 methylcholanthrene.
AUTHOR: Kobayashi N.; Okamoto T.; Yarita T.; et al.
CORPORATE SOURCE: Dept. Surg., Inst. Pulm. Cancer Res., Sch. Med., Univ. Chiba, Japan
SOURCE: Gann, The Japanese Journal of Cancer Research, (1976) 67/4 (611-615).
CODEN: GANNA2
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
016 Cancer
030 Pharmacology
005 General Pathology and Pathological Anatomy
LANGUAGE: English
AB A carcinoma induced in a s.c. bronchial autograft in dogs (after pneumonectomy) was studied. After successful bronchus tissue transplantation, 3 methylcholanthrene or 3,4 benzo(.alpha.)pyrene in a 1% carboxymethyl ***cellulose*** solution was injected into the lumen. After 28 wk atypical squamous metaplasia with an invasive squamous cell carcinoma was found in 1 dog. Squamous cell metaplasia was also observed in 2 other dogs after 24 wk. The remaining 15 dogs are still living and under observation, at the time of writing.

L16 ANSWER 87 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 77068745 EMBASE
DOCUMENT NUMBER: 1977068745
TITLE: Absence of carcinogenic effects of chronic feeding of snuff in inbred Syrian hamsters.
AUTHOR: Homburger F.; Hsueh S.S.; Russfield A.B.; et al.
CORPORATE SOURCE: Bio Res. Inst., Cambridge, Mass. 02141, United States
SOURCE: Toxicology and Applied Pharmacology, (1976) 35/3 (515-521).
CODEN: TXAPA
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
005 General Pathology and Pathological Anatomy
LANGUAGE: English
AB From time to time, smoking and/or the use of chewing tobacco have been implicated in the etiology of oral carcinomas, but controlled animal experimentation on the effects of a widely used form of chewing tobacco, known as snuff, is lacking. Fifty male inbred Syrian hamsters, aged 60-90 days, received a diet reduced in caloric content by 20% ***methylcellulose*** , or a diet containing 20% snuff (powdered tobacco), or 50 (5 mg) gavages of 20 methylcholanthrene (MC) in addition to chow, or 50 (0.5 mg) gavages of MC (assumed to be a noncarcinogenic dose) with a ***cellulose*** containing diet, or 50 (0.5 mg) gavages of MC with a diet containing 20% snuff. These chronic feeding studies failed to reveal any carcinogenic or cocarcinogenic effects of snuff. Presence in serum of cotinine derived from nicotine, together with food consumption and body weight studies, showed adequate snuff intake. Tumors in the MC fed animals demonstrated the susceptibility of the two inbred lines of Syrian hamsters used in this study. The only effect of snuff noted was a slower growth of the animals in one of the inbred lines but not in the other. The conclusion is warranted that 20% snuff in the diet is neither carcinogenic nor cocarcinogenic for these animals.

(FILE 'HOME' ENTERED AT 14:20:40 ON 18 APR 2001)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 14:20:49 ON 18 APR 2001

```
L1        312257 S CELLULOSE
L2       2686481 S CANCER OR TUMOR OR TUMOUR OR CARCINOGENESIS
L3          5482 S L1 AND L2
L4           875 S NON-FERMENTABLE
L5             9 S L3 AND L4
L6             3 DUP REM L5 (6 DUPLICATES REMOVED)
L7         14235 S METHYLCELLULOSE
L8          3065 S ETHYLCELLULOSE
L9          8858 S CARBOXYMETHYLCELLULOSE
L10         1790 S HYDROXYPROPYL-METHYLCELLULOSE
L11           46 S L3 AND L7
L12           25 S L3 AND L8
L13           44 S L3 AND L9
L14            6 S L3 AND L10
L15          107 S L11 OR L12 OR L13 OR L14
L16           87 DUP REM L15 (20 DUPLICATES REMOVED)
L17       563210 S DIET
L18       397569 S DIETARY
L19       754464 S L17 OR L18
L20          587 S L3 AND L19
L21      2594780 S PREVENT? OR INCIDENCE
L22          278 S L20 AND L21
L23            4 S L22 AND (L7 OR L8 OR L9 OR L10)
L24            4 DUP REM L23 (0 DUPLICATES REMOVED)
L25           16 S L1 AND L19 AND L21 AND (L7 OR L8 OR L9 OR L10)
L26           15 DUP REM L25 (1 DUPLICATE REMOVED)
L27       607327 S BREAST OR MAMMARY OR COLORECTAL
L28           76 S L22 AND L27
L29           45 DUP REM L28 (31 DUPLICATES REMOVED)
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L29 ANSWER 1 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2001037846 EMBASE

TITLE: Effect of ***dietary*** galacto-oligosaccharides on azoxymethane-induced aberrant crypt foci and ***colorectal*** ***cancer*** in Fischer 344 rats.

AUTHOR: Wijnands M.V.W.; Schoterman H.C.; Bruijntjes J.P.; Hollanders V.M.H.; Woutersen R.A.

CORPORATE SOURCE: M.V.W. Wijnands, TNO Nutrition and Food Research, Department of General Toxicology, Utrechtseweg 48, 3700 AJ Zeist, Netherlands

SOURCE: Carcinogenesis, (2001) 22/1 (127-132).
Refs: 32
ISSN: 0143-3334 CODEN: CRNGDP

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT:
016 Cancer
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
048 Gastroenterology

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The aim of the present study was to investigate the effects of galacto-oligosaccharides (GOS, Elix'or) on the development of aberrant crypt foci (ACF) and ***colorectal*** tumours in rats treated with azoxymethane (AOM). Two groups of 102 male Fischer 344 rats were injected twice with AOM to induce ***colorectal*** tumours, and fed diets containing either a low [5% (w/w); LGOS] or a high [20% (w/w); HGOS] concentration of GOS. Four weeks after the last AOM injection, 18 animals from each group were killed and their colon was removed for scoring ACF. Half of the animals in the LGOS group were switched to an HGOS ***diet*** (L/HGOS) and half of those in the HGOS group to an LGOS ***diet*** (H/LGOS). Six weeks after the change in ***diet*** , nine animals per group were killed for scoring ACF. Ten months after the start of the study the remaining animals were killed for scoring ***colorectal*** tumours. The aberrant crypt multiplicity scored after 13 weeks and the ***colorectal*** ***tumour*** ***incidence*** in rats fed an HGOS ***diet*** were significantly lower than those in rats fed an LGOS ***diet*** . However, the induction of ACF by AOM, the proliferation rate and apoptotic index of the adenomas, and the size and multiplicity of ***colorectal*** tumours were not influenced by the

amount of GOS in the ***diet*** . The aberrant crypt multiplicity, scored after 13 weeks, was predictive for the ***tumour*** outcome at the end of the study. It was concluded that an HGOS ***diet*** has a protective effect against the development of ***colorectal*** tumours in rats and that this protective effect is exerted during the promotion phase rather than the initiation phase of ***carcinogenesis*** .

L29 ANSWER 2 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2001021315 EMBASE
TITLE: Folate deficiency reduces the development of ***colorectal*** ***cancer*** in rats.
AUTHOR: Le Leu R.K.; Young G.P.; McIntosh G.H.
CORPORATE SOURCE: R.K. Le Leu, CSIRO, Health Sciences and Nutrition, Gouger Street, Adelaide, SA 5000, Australia. richard.leleu@hsn.csiro.au
SOURCE: Carcinogenesis, (2000) 21/12 (2261-2265). Refs: 43 ISSN: 0143-3334 CODEN: CRNGDP
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Alterations in folate status may play an important role in ***carcinogenesis*** . The aim of this study was to examine the effect of a diminished folate status on azoxymethane (AOM)-induced intestinal tumours in Sprague-Dawley rats. A total of 125 weanling male rats were divided into five equal groups and fed semi-purified diets containing either 8 mg/kg folate or no folate. After 4 weeks on experimental diets, all animals received three weekly subcutaneous injections of AOM at a dose rate of 15 mg/kg bodyweight. The animals were necropsied after 26 weeks. Rats with a diminished folate status, evident by significantly reduced blood and colonic folate concentrations and elevated plasma homocysteine levels, had significantly ($P < 0.01$) lower ***incidence*** and number of small intestinal and colonic tumours compared with rats displaying an adequate folate status. There was a significant decrease in the ***incidence*** of colonic adenocarcinomas ($P < 0.01$) and size of colonic tumours observed in the rats displaying a diminished folate status. This study shows that a diminished folate status was associated with a decrease in the development of AOM-induced ***colorectal*** cancers. The decrease in risk may be attributed to the known role of folate in cell multiplication.

L29 ANSWER 3 OF 45 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:487219 CAPLUS
DOCUMENT NUMBER: 131:111425
TITLE: ***Cellulose*** derivatives for reduction of risk of ***colorectal*** ***cancer*** and ***breast*** ***cancer***
INVENTOR(S): Daggy, Bruce Paul; Mandel, Kenneth G.
PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA
SOURCE: PCT Int. Appl., 14 pp. CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937311	A1	19990729	WO 1999-US1377	19990121
W: CA, JP, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1047433	A1	20001102	EP 1999-903303	19990121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
ZA 9900478	A	19990723	ZA 1999-478	19990122
PRIORITY APPLN. INFO.:			US 1998-72370	19980123
			WO 1999-US1377	19990121

AB A method is provided for reducing the ***incidence*** of

in which dose-response was well characterized. Effects observed consistently have been decreases in body weight gain (often accompanied by decreases in food consumption) and increases in organ to body weight ratios, particularly for the kidney and liver. Histopathological effects on the pancreas and kidney and haematological effects have also been observed. At higher doses, degenerative effects on the testes and, occasionally, histopathological effects on the liver have been reported. In specialized investigations, peroxisomal proliferation in the liver has been observed, although potency in this regard was less than that for other phthalates, such as bis(2-ethylhexyl) phthalate (DEHP). The chronic toxicity and carcinogenicity of BBP have been investigated in US National Toxicology Program (NTP) bioassays in rats (including standard and feed-restricted protocols) and mice. It was concluded that there was 'some evidence' of carcinogenicity in male rats, based on an increased ***incidence*** of pancreatic tumours, and equivocal evidence in female rats, based on marginal increases in pancreatic and bladder tumours. ***Dietary*** restriction ***prevented*** full expression of the pancreatic tumours and delayed appearance of the bladder tumours. There was no evidence of carcinogenicity in mice. The weight of evidence of the genotoxicity of BBP is clearly negative. However, available data are inadequate to conclude unequivocally that BBP is not clastogenic, although in identified studies it has induced, at most, weak activity of a magnitude consistent with secondary effects on DNA. Therefore, BBP has induced an increase in pancreatic tumours primarily in one sex of one species, the full expression of which was ***prevented*** in a ***dietary*** restriction protocol, and a marginal increase in bladder tumours in the other sex, which was delayed upon ***dietary*** restriction. The weight of evidence of genotoxicity is negative, and, although weak clastogenic potential cannot be ruled out, available data are consistent with the compound not interacting directly with DNA. On this basis, BBP can be considered, at most, possibly carcinogenic to humans, like inducing tumours through a non-genotoxic (although unknown) mechanism. In a range of studies, including those designed to investigate the reproductive effects of BBP on the testes and endocrine hormones of male rats, a modified mating protocol conducted by the NTP, and a one-generation study, adverse effects on the testes and, consequently, fertility have generally been observed only at doses higher than those that induce effects on other organs (such as the kidney and liver), although decreases in sperm counts have been observed at doses similar to those that induce effects in the kidney and liver. This is consistent with the results of repeated-dose toxicity studies. Reductions in testes weight and daily sperm production in offspring were reported at a relatively low level in rats exposed in utero and during lactation in a study in which dose response was not investigated. However, such effects were not observed in a recent study of similar, but not identical, design in another strain of rats in which only increases in absolute and relative liver weights were observed at postnatal day 90. Additional investigation of potential effects on the reproductive systems of male and female animals exposed in utero and during lactation in studies designed to address dose response is desirable and is under way. Although BBP has been estrogenic in human ***breast*** cell ***cancer*** lines in vitro, results in yeast cells have been mixed. Neither BBP nor its principal metabolites have been uterotrophic in vivo in rats or mice. Although available data do not support the conclusion that BBP is estrogenic, other potential endocrine-mediated effects such as anti- androgenic activity associated with dibutyl phthalate (DBP) are not precluded. There is considerable emphasis currently on development of more sensitive frameworks for testing and assessment of endocrine-disrupting substances, compounds such as phthalates are likely early candidates for additional testing. In several well-conducted studies in rats and mice, BBP has induced marked developmental effects, but only at dose levels that induce significant maternal toxicity. Although the potential neurotoxicity of BBP has not been well investigated, histopathological effects on the central and peripheral nervous systems have not been observed following short-term exposure to relatively high ***dietary*** concentrations. Available data are inadequate to assess the potential immunotoxicity of BBP. A sample tolerable daily intake (TDI) of 1300 .mu.g/kg body weight per day has been derived for BBP. It is based upon the lower 95% confidence limit for the benchmark dose associated with a 5% increase in the ***incidence*** of pancreatic lesions in male rats in an oral subchronic bioassay divided by an uncertainty factor of 100 (10 for interspecies variation and 10 for intraspecies variation). Based upon concentrations in various environmental media, it appears (from sample estimates) that food contributes all of the estimated intake, which is considered, for the general population, to range from 2 to 6 .mu.g/kg body weight per day.

L29 ANSWER 23 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 97215866 EMBASE
DOCUMENT NUMBER: 1997215866
TITLE: ***Dietary*** fiber: Nutritional lessons for macronutrient substitutes.
AUTHOR: Behall K.M.
CORPORATE SOURCE: K.M. Behall, BARC-East, Beltsville Human Nutr. Research Ctr., United States Department Agriculture, Beltsville, MD 20705-2350, United States. behall@bhnrc.arsusda.gov
SOURCE: Annals of the New York Academy of Sciences, (1997) 819/- (142-154).
Refs: 61
ISSN: 0077-8923 CODEN: ANYAA
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
LANGUAGE: English

L29 ANSWER 24 OF 45 MEDLINE
ACCESSION NUMBER: 96281679 MEDLINE
DOCUMENT NUMBER: 96281679
TITLE: ***Dietary*** fat and fiber differentially alter intracellular second messengers during ***tumor*** development in rat colon.
AUTHOR: Jiang Y H; Lupton J R; Chang W C; Jolly C A; Aukema H M; Chapkin R S
CORPORATE SOURCE: Faculty of Nutrition, Molecular and Cell Biology Group, Texas A&M University, College Station, 77843-2471, USA.
CONTRACT NUMBER: CA59034 (NCI)
CA61750 (NCI)
SOURCE: CARCINOGENESIS, (1996 Jun) 17 (6) 1227-33.
Journal code: C9T. ISSN: 0143-3334.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199610
AB The effect of fat, fiber and carcinogen on colonic epithelial intracellular second messengers 1,2-diacyl-sn-glycerol (DAG), ceramide, and the steady-state level of phospholipase C (PLC-gamma1) was determined in 160 male Sprague-Dawley rats (10 rats per group). The study was a 2 x 2 x 2 x 2 factorial design with two types of fat (corn oil or fish oil), two types of fiber (***cellulose*** or pectin), two injected subgroups (with or without azoxymethane (AOM), and two time points (15 and 37 weeks). At the final time point (37 weeks) there were an additional 20 rats per ***diet*** in each of the carcinogen-treated groups for ***tumor*** analyses only (n = 80), for a total of 240 animals in the entire study. At each time point (15 and 37 weeks), 80 rats were killed and colonic mucosa obtained for DAG, ceramide and PLC-gamma1 assays. At the first time point (15 weeks), there was no microscopic evidence of tumors. At the final time point (37 weeks), fish oil resulted in a lower proportion of animals with adenocarcinomas relative to corn oil feeding (56.1 % versus 69.6 %, P < 0.05). There was no significant main effect of fiber on the percentage of animals with tumors. At 15 weeks post-injection, AOM injected animals fed corn oil-containing diets had a significantly (P < 0.001) higher DAG mass and steady-state levels of PLC-gamma1 compared with AOM-injected animals fed fish oil and saline injected rats on all diets. Animals fed corn oil diets also had a significantly (P < 0.01) elevated mucosal ceramide mass compared with fish oil fed animals. Moreover, rats injected with AOM had a significantly (P < 0.02) elevated colonic mucosal DAG/ceramide ratio versus saline injected animals. In contrast, ***dietary*** fiber had no effect on any of the parameters measured at 15 weeks. However, at 37 weeks post-injection, ***dietary*** fiber significantly altered DAG (P < 0.02), and PLC-gamma1 expression (P < 0.05) in the absence of an effect on ***tumor*** ***incidence*** . These data demonstrate that the ability of ***dietary*** fish oil to reduce experimental colon ***carcinogenesis*** may be mediated by changes in colonic intracellular mediators during the initial stages of tumorigenesis.

L29 ANSWER 25 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 12
ACCESSION NUMBER: 96088977 EMBASE
DOCUMENT NUMBER: 1996088977

TITLE: ***Diet*** and experimental ***colorectal*** ***cancer*** .
AUTHOR: Ma Q.; Hoper M.; Halliday I.; Rowlands B.J.
CORPORATE SOURCE: Department of Surgery, Institute of Clinical Science, Grosvenor Road,Belfast BT12 6BJ, United Kingdom
SOURCE: Nutrition Research, (1996) 16/3 (413-426).
ISSN: 0271-5317 CODEN: NTRSDC
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB National and international geographic variations in the ***incidence*** and mortality rates of ***colorectal*** ***cancer*** along with changes in prevalence among migrant populations would suggest that environmental factors have a role in the aetiology of this disease. Animal models of chemically induced colonic ***carcinogenesis*** have been widely used to assess the effect of ***dietary*** components such as fat and fibre. These studies have shown that the type of fat is important. Polyunsaturated vegetable oils rich in .omega.-6 fatty acids have a promotional role whereas fish oil rich in .omega.-3 fatty acids has no promotional effect and may even inhibit turnout formation. Studies of the effect of fibres have shown that insoluble ***dietary*** fibres such as wheat bran and ***cellulose*** may have a protective role. However, soluble fibres such as pectin and psyllium offer little protection and in fact carrageenan may have a promotional effect. It has been suggested that phytic acid (inosital hexaphosphate), a component of many fibre-rich diets, rather than fibre per se, has a role in the suppression of colonic ***carcinogenesis*** . Despite conflicting evidence, it may be plausible to advocate a high fibre, low fat ***diet*** as a measure of secondary ***prevention*** of ***colorectal*** ***cancer*** .

L29 ANSWER 26 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96056404 EMBASE
DOCUMENT NUMBER: 1996056404
TITLE: Benefits of ***dietary*** fiber: Myth or medicine?.
AUTHOR: Bennett W.G.; Cerda J.J.
CORPORATE SOURCE: Division of Gastroenterology, University of Florida, PO Box 100214,Gainesville, FL 32610-0214, United States
SOURCE: Postgraduate Medicine, (1996) 99/2 (153-154+156+166-168+171-175).
ISSN: 0032-5481 CODEN: POMDAS
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB In recent years, many health claims have been made about ***dietary*** and supplemental fiber. However, some reports (eg, those regarding oat bran) have been controversial. A review of scientifically rigorous studies shows that fiber has some ***preventive*** or therapeutic benefits in irritable bowel syndrome, diverticulosis, ***colorectal*** ***cancer*** , diabetes, and hypercholesterolemia. However, it appears to have no direct benefit in patients with inflammatory bowel disease, gallstones, or obesity. The United States has one of the lowest per capita intakes of fiber in the world. Therefore, increasing daily fiber intake either through ***diet*** or with supplements is recommended for most Americans. Consumer interest groups should lobby for more fiber-enriched foods. The challenge for education and healthcare professionals alike is to remold the nation's interest in and understanding of ***dietary*** fiber.

L29 ANSWER 27 OF 45 MEDLINE DUPLICATE 13
ACCESSION NUMBER: 96152622 MEDLINE
DOCUMENT NUMBER: 96152622
TITLE: Dose-response effects of ***dietary*** fiber on NMU-induced ***mammary*** tumorigenesis, estrogen levels and estrogen excretion in female rats [published erratum appears in ***Carcinogenesis*** 1996 Mar;17(3):613].
AUTHOR: Cohen L A; Zhao Z; Zang E; Rivenson A
CORPORATE SOURCE: Division of Nutrition and Endocrinology, American Health

Foundation, Valhalla, NY 10595, USA.
SOURCE: CARCINOGENESIS, (1996 Jan) 17 (1) 45-52.
Journal code: C9T. ISSN: 0143-3334.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Cancer Journals; Priority Journals
ENTRY MONTH: 199605

AB The dose-related effects of the fiber-rich isolate, soft white wheat bran (SWWB), and the pure fiber, ***cellulose*** , on N-nitrosomethylurea (NMU)-induced ***mammary*** tumorigenesis was assessed in F344 female rats. SWWB (45% total ***dietary*** fiber, TDF) was added to the AIN-76A high-fat ***diet*** at 9, 12, 15 and 18%; ***cellulose*** (98% TDF) was added to the same ***diet*** at 4.5, 6, 7.5 and 9%, to give equivalent amounts of TDF. The experimental diets were fed 3 days post-NMU and continued for a period of 25 weeks, at which time the experiment was terminated and tumors enumerated. It was found that significant inhibition of ***mammary*** carcinoma occurred only at 9% SWWB, non-significant inhibition occurred at 12% SWWB, and no inhibition was seen at higher doses. ***Cellulose*** -fed animals exhibited consistently higher ***tumor*** yields regardless of dose. The difference in ***tumor*** yields between the 9% SWWB group and the remaining seven groups was attributable to an increased ***incidence*** in tumors characterized histologically as intraductal proliferation and ductal carcinoma in situ in the latter. Analysis of blood, urine and fecal estrogens was conducted to test whether ***dietary*** fiber exerted its ***tumor*** -inhibiting effect by altering the enterohepatic recycling of estrogens. Although SWWB, in general, lowered urinary estrogen excretion, increased fecal estrogen excretion and lowered blood estrogens, there was no consistent correlation between the amount of SWWB consumed, estrogen status and ***tumor*** yields. These results suggest that (i) wheat bran fiber at 9%, or minor constituents associated with it, contain anti-promoting properties that ***cellulose*** lacks; (ii) SWWB appears to exert its effects by suppressing the clonal expansion phase of ***mammary*** ***carcinogenesis*** ; (iii) there is an upper limit (12-15% w/w) to the protective effects of SWWB; and (iv) the effects of SWWB on ***mammary*** tumorigenesis may not be attributed to alterations in the enterohepatic recycling of estrogens.

L29 ANSWER 28 OF 45 MEDLINE DUPLICATE 14
ACCESSION NUMBER: 95271685 MEDLINE
DOCUMENT NUMBER: 95271685
TITLE: Randomized, double-blinded, placebo-controlled intervention study with supplemental calcium in families with hereditary nonpolyposis ***colorectal*** ***cancer*** .
AUTHOR: Cats A; Kleibeuker J H; van der Meer R; Kuipers F; Sluiter W J; Hardonk M J; Oremus E T; Mulder N H; de Vries E G
CORPORATE SOURCE: Department of Medical Oncology, University Hospital Groningen, The Netherlands.
SOURCE: JOURNAL OF THE NATIONAL CANCER INSTITUTE, (1995 Apr 19) 87 (8) 598-603.
Journal code: J9J. ISSN: 0027-8874.
PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Cancer Journals; Priority Journals
ENTRY MONTH: 199508

AB BACKGROUND: A high-fat ***diet*** has been recognized for some time as a major risk factor for ***colorectal*** ***cancer*** . It is thought that fat promotes this disease by increasing the levels of fatty and bile acids within the colon. These acids irritate and damage the epithelial cells of the colon. As a result of this cellular destruction, an increase in the rate of cellular proliferation occurs. Oral calcium supplementation has been proposed as a ***dietary*** intervention for individuals at high risk of ***colorectal*** ***cancer*** because of its ability to reduce rectal epithelial cell proliferation through the binding of fatty and bile acids. Placebo-controlled studies, however, have yielded varying results. PURPOSE: We conducted a randomized, double-blinded, placebo-controlled trial to test oral calcium supplementation in patients at high risk of developing hereditary nonpolyposis ***colorectal*** ***cancer*** . METHODS: Thirty subjects at risk for this ***cancer*** , with an increased epithelial cell proliferation along the colon and rectum, were randomly assigned to

either a placebo group (n = 15) or a treatment group (n = 15). They received either oral calcium carbonate (CaCO3) supplements (1.5 g) or placebo (***cellulose*** and starch) three times a day during a 12-week period. Colonic biopsy specimens (rectal, sigmoidal, and descending) were obtained prior to and after the intervention trial, during endoscopy, for determination of labeling index (LI) of whole crypts and crypt compartments by 5-bromo-2'-deoxyuridine incorporation and immunohistochemistry. Proportional bile acid compositions in duodenal bile and cytolytic activity of fecal water were also determined. All P values represent two-tailed tests of statistical significance. RESULTS: Statistically significant reductions, comparing before with after intervention, in rectal whole-crypt LI after receiving either calcium supplements (from 10.9% +/- 5.2% [mean +/- SD] to 6.2% +/- 1.5%; P < .02) or placebo (from 11.7% +/- 4.7% to 8.2% +/- 3.1%; P < .05) were observed. In the three bowel segments, no statistically significant differences were observed between the supplemental calcium and placebo groups. A statistically significant reduction in cytolytic activity was determined during calcium supplementation (from 57% +/- 41% to 32% +/- 30%; P < .05), whereas in the placebo group, it did not change (from 42% +/- 41% to 36% +/- 27%; P > .10). CONCLUSIONS: Oral calcium supplementation was shown to cause only a minor nonstatistically significant reduction of epithelial cell proliferation in the rectum, compared with placebo, and to have no effect on the same parameter in the sigmoid and descending colon in first-degree relatives of hereditary nonpolyposis ***colorectal*** ***cancer*** patients. IMPLICATION: These results cast doubt on the value of calcium supplementation in the ***prevention*** of ***colorectal*** ***cancer*** , especially in individuals already consuming an adequate amount of ***dietary*** calcium.

L29 ANSWER 29 OF 45 MEDLINE
ACCESSION NUMBER: 95246169 MEDLINE
DOCUMENT NUMBER: 95246169
TITLE: The effects of a soluble-fibre polysaccharide on the adsorption of carcinogens to insoluble ***dietary*** fibres.
AUTHOR: Ferguson L R; Roberton A M; Watson M E; Triggs C M; Harris P J
CORPORATE SOURCE: Cancer Research Laboratory, University of Auckland, New Zealand.
SOURCE: CHEMICO-BIOLOGICAL INTERACTIONS, (1995 Apr 14) 95 (3) 245-55.
Journal code: CYV. ISSN: 0009-2797.
PUB. COUNTRY: Ireland
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199508
AB Epidemiology and animal experiments indicate that ***dietary*** fibres protect against the development of ***colorectal*** ***cancer*** . However, insoluble ***dietary*** fibres appear to be more effective than soluble ***dietary*** fibres and one mechanism by which they may protect is by adsorbing ***dietary*** carcinogens. We found previously that the ability of a carcinogen to adsorb in vitro to alpha- ***cellulose*** (a model insoluble ***dietary*** fibre) was strongly related to the hydrophobicity of the carcinogen, measured as the calculated logarithm of the partition coefficient between 1-octanol and water (C log P). Furthermore, soluble ***dietary*** fibres (soluble-fibre polysaccharides), including gum arabic, reduced the adsorption of the hydrophobic carcinogen, DNP, to alpha- ***cellulose*** . In the present study we tested the ability of gum arabic to reduce the adsorption in vitro of the carcinogens BaP (C log P = 6.124), DNP (C log P = 4.384), and the heterocyclic amines, Trp-P-1 (C log P = 3.230) and MeIQx (C log P = 1.078). Gum arabic reduced the adsorption to alpha- ***cellulose*** of BaP and DNP, but not the adsorption of Trp-P-1 or MeIQx. Gum arabic also reduced the adsorption of BaP to an insoluble, ***dietary*** -fibre preparation from commercial cork which contains the hydrophobic component, suberin, but did not affect the adsorption of DNP, Trp-P-1 or MeIQx. It also did not affect the adsorption of DNP to an insoluble, ***dietary*** -fibre preparation from wheat straw, which contains the hydrophobic component, lignin. The results are discussed in terms of hydrophobic interactions between carcinogens and insoluble ***dietary*** fibres. In vivo, it is likely that soluble ***dietary*** fibres reduce the adsorption of only highly hydrophobic carcinogens to some insoluble ***dietary*** fibres.

L29 ANSWER 40 OF 45 MEDLINE
ACCESSION NUMBER: 87238009 MEDLINE
DOCUMENT NUMBER: 87238009
TITLE: Modification of experimental colon ***carcinogenesis*** by ***dietary*** fibers.
AUTHOR: Jacobs L R
CONTRACT NUMBER: CA 35627 (NCI)
SOURCE: ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1986) 206 105-18.
Journal code: 2LU. ISSN: 0065-2598.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198709
AB The literature concerning the effect of individual ***dietary*** fibers on the experimental induction of ***colorectal*** ***cancer*** was reviewed. It has become increasingly apparent that the effect of ***dietary*** fibers on colon ***carcinogenesis*** depends on many factors, including the type and amount of fiber; the other ***dietary*** components, particularly fat; animal species, strain, and sex; and the type of carcinogen and its dose and route of administration. Despite such variations in design, most experiments with wheat bran and ***cellulose*** have shown evidence of a significant protective effect. In contrast, numerous other fiber supplements have been shown to enhance ***tumor*** development. These include pectin, corn bran, undegraded carageenan, agar, Metamucil, and alfalfa. Possible mechanisms by which fibers may inhibit colon tumorigenesis include dilution and adsorption of any carcinogens or promoters contained within the intestinal lumen and faster transit time and therefore less opportunity for carcinogen/promoter interaction with the intestinal epithelium. Modulation of colonic microbial metabolic activity by ***dietary*** fibers may also be important in the activation and detoxification of carcinogens and promoters. ***Dietary*** fibers produce structural and functional changes in the intestinal epithelium and modify rates of cell proliferation changes in the intestinal epithelium and modify rates of cell proliferation and migration. Evidence suggests that if this stimulus to cell proliferation occurs during the stage of initiation, it may lead to enhancement of the carcinogenic process. ***Dietary*** fibers bind not only carcinogens, bile acids, and other potentially toxic agents but also essential nutrients that themselves can modify the carcinogenic process. Fermentation of fibers within the large bowel results in production of volatile fatty acids, which in vitro have been shown to be antineoplastic. Fermentation also produces a lower luminal pH, which in turn affects colonic microbial populations and their metabolic activities. The presence of lignans in higher plants and their bacterial synthesis from precursors present in fiber-rich foods provide an additional source of antineoplastic agents, whose relative importance in colon ***carcinogenesis*** is unknown. Because ***dietary*** fibers differ in their physiochemical properties, it has been difficult to identify a single mechanism by which fibers ***prevent*** or inhibit colon ***carcinogenesis*** . Clearly, more investigation is needed regarding the mechanism(s) by which certain fibers inhibit while others enhance experimental colon ***carcinogenesis*** .

L29 ANSWER 41 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 83243139 EMBASE
DOCUMENT NUMBER: 1983243139
TITLE: Effect of ***dietary*** 18-carbon fatty acids on growth of transplantable ***mammary*** adenocarcinomas in mice.
AUTHOR: Abraham S.; Hillyard L.A.
CORPORATE SOURCE: Bruce Lyon Meml. Res. Lab., Child. Hosp. Med. Cent. North. California, Oakland, CA 94609, United States
SOURCE: Journal of the National Cancer Institute, (1983) 71/3 (601-605).
CODEN: JNCIAM
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
016 Cancer
009 Surgery
029 Clinical Biochemistry
LANGUAGE: English
AB The growth rates of 2 spontaneously developed ***mammary***

adenocarcinomas, one in a female C3H mouse and the other in a female BALB/c mouse, were determined after transplantation into isologous female mice fed a specific ***diet*** to which various edible fats or pure fatty acids were added. The 18-carbon fatty acids used contained one (oleate), two (linoleate), or three (linolenate and columbinate) double bonds in either the 5, 9, 12, or 15 positions. The transplanted tumors grew to a larger size in C3H mice fed the 10% corn oil ***diet*** (with .apprx. 60% linoleate content) than in those fed the 10% hydrogenated oil ***diet*** (without linoleate). The C3H mice fed diets with 1% linoleic acid developed significantly larger tumors than did those fed 1% oleic acid, whereas those fed 1% columbinic acid did not develop significantly heavier tumors compared to 1% oleic acid-fed mice. This finding occurred despite the fact that both oleate and columbinate were taken up and were incorporated into complex lipids by the transplanted ***tumor*** and the ratio of monoenoic:dienoic:polyenoic fatty acids in the neoplasms' lipids from columbinate-fed mice was similar to that from linoleate-fed mice. Columbinate, similarly to linoleate, has both 9-cis and 12-cis double bonds, but it also posseses a trans double bond in the 5 position that apparently ***prevents*** its conversion to prostaglandins (PG). These results are entirely consistent with the view that production of PG is required for ***tumor*** enhancement by ***dietary*** polyunsaturated fat. In the experiment with BALB/c mice, ***tumor*** growth was stimulated by 1% ***dietary*** linoleic acid but not by 1% linoleic acid when compared with that observed with 1% oleic acid. Thus as a result of these new experiments, PG of series 1 or 2 are more likely to be involved in the process of ***tumor*** growth enhancement than are PG of series 3.

L29 ANSWER 42 OF 45 MEDLINE DUPLICATE 17
ACCESSION NUMBER: 81204199 MEDLINE
DOCUMENT NUMBER: 81204199
TITLE: Recent advances in ***dietary*** fiber and ***colorectal*** diseases.
AUTHOR: Spiller G A; Freeman H J
SOURCE: AMERICAN JOURNAL OF CLINICAL NUTRITION, (1981 Jun) 34 (6) 1145-52. Ref: 69
Journal code: 3EY. ISSN: 0002-9165.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198109
AB ***Dietary*** fiber has emerged in the past decade as a factor in nutrition that appears to have complex physiological and clinical implications. A great deal of research has focused on its effect on ***colorectal*** diseases. Some human epidemiological studies on colon ***cancer*** point to a possible ***preventive*** role of ***dietary*** fiber, but the results are confounded by the difference in the intake of many other food substances such as fat and the overall differences in the ***dietary*** pattern of the populations investigated. Animal studies using chemical carcinogens, such as 1,2-dimethylhydrazine, have lent support to a protective role of certain components of fiber, such as purified ***cellulose*** . Other fiber polymers, such as pectin, have not shown any protective effect. Perhaps the strongest evidence for a protective role of fiber in the colon comes from studies relating low ***dietary*** fiber intake to the higher ***incidence*** of diverticular disease of the colon; addition of ***dietary*** fiber to the ***diet*** of patients with symptomatic diverticular disease seems to relieve pain effectively. Recently, some preliminary studies have shown the possible correlation of low ***dietary*** fiber intake with a greater ***incidence*** of ulcerative colitis and Crohn's disease, but these studies are too limited in number and scope to allow any conclusion to be reached at this time.

L29 ANSWER 43 OF 45 MEDLINE
ACCESSION NUMBER: 80001739 MEDLINE
DOCUMENT NUMBER: 80001739
TITLE: Effect of ***dietary*** fiber on the induction of ***colorectal*** tumors and fecal beta-glucuronidase activity in the rat.
AUTHOR: Bauer H G; Asp N G; Oste R; Dahlqvist A; Fredlund P E
SOURCE: CANCER RESEARCH, (1979 Sep) 39 (9) 3752-6.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198001
AB The purpose of the present study was to investigate whether three different types of ***dietary*** fiber, wheat bran, carrot fiber, and citrus pectin, influenced the induction of ***colorectal*** tumors produced by 1,2-dimethylhydrazine in rats. In all groups, the ***tumor*** yield was high (87 to 97%). In the wheat bran and carrot fiber groups, the ***incidence*** of ***colorectal*** tumors was not significantly different from that of the group fed on the fiber-free basic ***diet*** . The citrus pectin group, however, had a significantly higher ***incidence*** of ***colorectal*** tumors (p less than 0.001). An increased number of auditory duct tumors was also noted in this group. In a separate experiment, ***dietary*** pectin induced a 10-fold increase in fecal beta-glucuronidase activity but did not alter this activity in the bowel wall. It has been suggested that ***dietary*** fiber protects against the induction of ***colorectal*** tumors, but this was not the case in the experiment. It is possible that the high ***tumor*** yield made the demonstration of a weak protective effect of wheat bran impossible. The reason for the increased occurrence of tumors in the citrus pectin group is obscure and will be subjected to further investigation. Fecal beta-glucuronidase activity might be one factor of importance in the activation of the carcinogen.

L29 ANSWER 44 OF 45 MEDLINE
ACCESSION NUMBER: 80032257 MEDLINE
DOCUMENT NUMBER: 80032257
TITLE: The ***prevention*** of ***colorectal*** ***cancer*** .
AUTHOR: Hunt P S; Sali A
SOURCE: MEDICAL JOURNAL OF AUSTRALIA, (1979 Jun 30) 1 (13) 613-6.
Journal code: M26. ISSN: 0025-729X.
PUB. COUNTRY: Australia
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198002

L29 ANSWER 45 OF 45 MEDLINE
ACCESSION NUMBER: 79063638 MEDLINE
DOCUMENT NUMBER: 79063638
TITLE: Effect of ***dietary*** undegraded carrageenan on colon ***carcinogenesis*** in F344 rats treated with azoxymethane or methylnitrosourea.
AUTHOR: Watanabe K; Reddy B S; Wong C Q; Weisburger J H
SOURCE: CANCER RESEARCH, (1978 Dec) 38 (12) 4427-30.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197904
AB The effect of ***dietary*** undegraded carrageenan (Viscarin 402) on colon ***carcinogenesis*** was studied in female inbred F344 rats. Weanling rats were fed semipurified diets containing 0 or 15% undegraded carrageenan. At 7 weeks of age, all animals except controls were given azoxymethane (AOM) s.c. at a dose rate of 8 mg/kg body weight per week for 10 weeks or methylnitrosourea (MNU) intrarectally at a dose level of 2 mg/rat twice a week for 3 weeks. The AOM groups were autopsied 40 weeks and the MNU groups 30 weeks after the first injection. No tumors were induced in the colon or in other organs of untreated rats fed the control ***diet*** . One untreated rat fed the carrageenan ***diet*** showed a colon adenoma. The animals fed the carrageenan ***diet*** and treated with AOM or MNU had a higher ***incidence*** of ***colorectal*** tumors (number of rats with ***colorectal*** tumors and number of tumors per ***tumor*** -bearing rat) than did those fed the control ***diet*** and treated similarly. The undegraded carrageenan (Viscarin 402) in the ***diet*** had an enhancing effect in ***colorectal*** ***carcinogenesis*** in rats evoked by AOM or MNU.

=> d his

colorectal cancers in a mammal in need thereof, which method comprises administering a water-sol., non-fermentable ***cellulose*** deriv., alone or in combination with an insol. fiber and/or a sol. fermentable fiber. A method for reducing the ***incidence*** of ***breast*** ***cancer*** is also disclosed.

REFERENCE COUNT: 3
REFERENCE(S):
(1) Alabaster; Cancer Letters 1993, V75, P53 CAPLUS
(2) Alabaster; Mutation Research 1996, V350, P185 CAPLUS
(3) Cohen; Journal of the National Cancer Institute 1996, V88(13), P899 MEDLINE

L29 ANSWER 4 OF 45 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 1999265363 MEDLINE
DOCUMENT NUMBER: 99265363
TITLE: Carcinogen and ***dietary*** lipid regulate ras expression and localization in rat colon without affecting farnesylation kinetics.
AUTHOR: Davidson L A; Lupton J R; Jiang Y H; Chapkin R S
CORPORATE SOURCE: Faculty of Nutrition, Molecular and Cell Biology Group, Texas A&M University, College Station 77843-2471, USA.
CONTRACT NUMBER: CA59034 (NCI)
CA61750 (NCI)
SOURCE: CARCINOGENESIS, (1999 May) 20 (5) 785-91.
Journal code: C9T. ISSN: 0143-3334.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199908

AB Epidemiological and experimental data suggest that ***dietary*** fiber and fat are major determinants of ***colorectal*** ***cancer*** . However, the mechanisms by which these ***dietary*** constituents alter the ***incidence*** of colon ***cancer*** have not been elucidated. Evidence indicates that dominant gain-of-function mutations short-circuit protooncogenes and contribute to the pathogenesis of ***cancer*** . Therefore, we began to dissect the mechanisms whereby ***dietary*** fat and fiber, fed during the initiation, promotion and progression stages of colon tumorigenesis, regulate ras p21 localization, expression and mutation frequency. Male Sprague-Dawley rats (140) were provided with corn oil or fish oil and pectin or ***cellulose*** plus or minus the carcinogen azoxymethane (AOM) in a 2 x 2 x 2 factorial design and killed after 34 weeks. We have previously shown adenocarcinoma ***incidence*** in these animals to be 70.3% (52/74) for corn oil + AOM and 56.1% (37/66) for fish oil + AOM ($P < 0.05$). Total ras expression as well as ras membrane:cytosol ratio was 4- to 6-fold higher in colon tumors than in mucosa from AOM- or saline-injected rats. Expression of ras in the mucosal membrane fraction was 13% higher for animals fed corn oil compared with fish oil feeding ($P < 0.05$), which is noteworthy since ras must be localized at the plasma membrane to function. The elevated ras membrane:cytosol ratio in tumors was not due to increased farnesyl protein transferase activity or prenylation state, as nearly all detectable ras was in the prenylated form. Phosphorylated p42 and p44 mitogen activated protein kinase (ERK) expression was two-fold higher in ***tumor*** extracts compared with uninvolved mucosa from AOM- and saline-injected rats ($P < 0.05$). The frequency of K-ras mutations was not significantly different between the various groups, but there was a trend toward a greater ***incidence*** of mutations in tumors from corn oil fed rats (85%) compared with fish oil fed rats (58%). Our results indicate that the carcinogen-induced changes in ras expression and membrane localization are associated with the in vivo activation of the ERK pathway. In addition, suppression of ***tumor*** development by ***dietary*** n-3 polyunsaturated fatty acids may be partly due to a combined effect on colonic ras expression, membrane localization, and mutation frequency.

L29 ANSWER 5 OF 45 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 1999237706 MEDLINE
DOCUMENT NUMBER: 99237706
TITLE: A comparison of the effects of ***dietary*** ***cellulose*** and fermentable galacto-oligosaccharide, in a rat model of ***colorectal*** ***carcinogenesis*** : fermentable fibre confers greater protection than non-fermentable fibre in both high and low fat backgrounds.
AUTHOR: Wijnands M V; Appel M J; Hollanders V M; Woutersen R A

CORPORATE SOURCE: TNO Nutrition and Food Research Institute, Department of General Toxicology, Zeist, The Netherlands.. wijnands@voeding.tno.nl
SOURCE: CARCINOGENESIS, (1999 Apr) 20 (4) 651-6. Journal code: C9T. ISSN: 0143-3334.
PUB. COUNTRY: ENGLAND: United Kingdom Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199907
ENTRY WEEK: 19990704

AB The objective of this experiment was to compare the effects of diets with either a non-fermentable fibre source (***cellulose***) or a fermentable fibre source [galacto-oligosaccharide (GOS)], combined with different levels of ***dietary*** fat, on the development of ***colorectal*** ***cancer*** . Male Wistar rats were fed AIN76-based diets with either a low or high level of ***cellulose*** , or a low or high level of GOS, for 9 months. The fat content of the diets was low, medium or high. All rats were treated with 1,2-dimethylhydrazine to induce ***colorectal*** tumours. Generally, the ***tumour*** ***incidence*** increased with increasing fat content in the ***diet*** . Despite marked faeces bulking, ***dietary*** ***cellulose*** either had no effect or an enhancing effect on the formation of ***colorectal*** tumours in general, although the development of carcinomas was decreased. GOS appeared to be highly protective against the development of ***colorectal*** tumours, as was demonstrated by an inhibitory effect on ***tumour*** ***incidence*** , multiplicity and size, regardless of the fat content of the ***diet*** . Neither fibre source influenced the bromodeoxyuridine labelling index determined in colon crypts or tumours. In animals fed high-GOS diets, the caecal content was significantly increased in weight and significantly decreased in pH. It was concluded that tumorigenesis was enhanced by increased fat content of the ***diet*** , and that the diets containing fermentable GOS conferred a greater protection against ***colorectal*** ***cancer*** than did the diets containing non-fermentable ***cellulose*** .

L29 ANSWER 6 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999117902 EMBASE
TITLE: ***Colorectal*** carcinoma: Etiology, diagnosis, and screening.
AUTHOR: Bedine M.S.
CORPORATE SOURCE: Dr. M.S. Bedine, 10751 Falls Rd., Lutherville, MD 21093, United States
SOURCE: Comprehensive Therapy, (1999) 25/3 (163-168). Refs: 16 ISSN: 0098-8243 CODEN: COTHD3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
022 Human Genetics
037 Drug Literature Index
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB ***Colorectal*** carcinoma is a leading cause of death in the United States. Risk factors include genetic predispotion, ***diet*** , obesity, and inflammatory bowel disease. Early detection and chemoprevention can lead to a lower death rate. Future developments will include sensitive and specific large-scale screening.

L29 ANSWER 7 OF 45 MEDLINE
ACCESSION NUMBER: 1999346238 MEDLINE
DOCUMENT NUMBER: 99346238
TITLE: ***Dietary*** fibres may protect or enhance ***carcinogenesis*** .
AUTHOR: Harris P J; Ferguson L R
CORPORATE SOURCE: School of Biological Sciences, The University of Auckland, Private Bag 92019, Auckland, New Zealand.. l.ferguson@auckland.ac.nz
SOURCE: MUTATION RESEARCH, (1999 Jul 15) 443 (1-2) 95-110. Ref: 120 Journal code: NNA. ISSN: 0027-5107.
PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199911
ENTRY WEEK: 19991103
AB ***Dietary*** fibre (DF) is widely considered to protect against ***cancer*** , especially ***colorectal*** ***cancer*** . However, a large prospective epidemiological study has shown no apparent effect of DF intake on the development of ***colorectal*** ***cancer*** . We suggest that this may be because the term DF represents a wide range of materials, some able to protect, but some able to enhance ***carcinogenesis*** . This is consistent with data from animal ***carcinogenesis*** experiments. Most of the DF in western diets is in the form of plant cell walls, but these vary in their composition and it is unlikely that all types are protective. The few data available indicate that plant cell walls containing suberin or lignin may be the most protective, although they are present in only small amounts in food plants. DFs are also added to foods. These include components obtained from plant cell walls, such as pectins, as well as soluble DFs from other sources. In general, animal ***carcinogenesis*** experiments indicate that soluble DFs do not protect and some may enhance ***carcinogenesis*** . Few human intervention studies have been done on DF or sources of DF, with the exception of wheat bran, a good source of DF, which has been shown to protect. Possible mechanisms whereby DF may enhance ***carcinogenesis*** are discussed. In addition to DFs, resistant starches and non-digestible oligosaccharides are added to foods; these, like DF, escape digestion in the small intestine. However, so far only a few animal ***carcinogenesis*** experiments have been reported using these materials, and no human intervention studies. We believe caution should be exercised in the addition of such materials to food.

L29 ANSWER 8 OF 45 EMBASE
ACCESSION NUMBER: 1999077336 EMBASE
TITLE: Steroid metabolism along the gastrointestinal tract of the cannulated pig.
AUTHOR: Fadden K.; Hill M.J.; Latymer E.; Low G.; Owen R.W.
CORPORATE SOURCE: K. Fadden, Applied Microbiology/Research Centre, Porton Down, Salisbury, Wiltshire SP4 0JG, United Kingdom
SOURCE: European Journal of Cancer Prevention, (1999) 8/1 (35-40).
Refs: 17
ISSN: 0959-8278 CODEN: EJUPEK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Steroid metabolism along the gastrointestinal tract of the cannulated pig was studied. This was achieved by fitting simple gut cannulas in the terminal ileum, caecum and mid-colon of three Landrace x large white boars, which enabled convenient collection of digesta and faecal samples at defined time points. Biochemical analyses showed that the neutral steroid profile of the pig is similar to that of man, dominated by cholesterol and its bacterial metabolite coprostanol. In contrast, pigs consuming a normal ***diet*** excrete appreciably lower quantities of neutral sterols in faeces. The major primary bile acids detected were the glycine and taurine amidates of hyocholic and chenodeoxycholic acids, which were rapidly converted to the free bile acids and subsequently dehydroxylated to hyodeoxycholic and lithocholic acids respectively, in the terminal ileum and caecum. Bacterial deconjugation and 7.alpha.-dehydroxylation are virtually complete in the caecum with negligible further metabolism in the colon and faeces. On a wet weight basis the concentration of both neutral and acid steroids was shown to increase aborally. Inclusion of ***dietary*** fibre in the form of ***cellulose*** (Solka floc) and guar gum reduced steroid concentration considerably at all sites of the large intestine, which is consistent with their stool bulking effects. In conclusion, this study shows that intestinal steroid metabolism in the pig is similar to that in man despite slightly different bile acid profiles and, therefore, the multicannulated pig may serve as a useful model of man in chemoprevention studies of ***colorectal*** ***cancer*** .

L29 ANSWER 9 OF 45 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1999:188994 BIOSIS
DOCUMENT NUMBER: PREV199900188994
TITLE: Protective role of wheat bran fiber: Preclinical data.
AUTHOR(S): Kritchevsky, David (1)
CORPORATE SOURCE: (1) Wistar Institute, 3601 Spruce Street, Philadelphia, PA, 19104-4268 USA
SOURCE: American Journal of Medicine, (Jan. 25, 1999) Vol. 106, No. 1 PART A, pp. 28S-31S.
ISSN: 0002-9343.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Although animal data relating to the effects of ***dietary*** fiber on experimentally induced colon tumors are not easily summarized, it appears that wheat bran fiber protects against colon ***cancer*** . In a recent direct comparison, an ad libitum ***diet*** containing wheat bran fiber led to a 40% lower ***incidence*** of colon tumors, compared with a ***cellulose*** -containing ***diet*** . In addition, the greater protective effect of wheat bran fiber as compared with the ***cellulose*** was shown in rats fed 10% or 20% energy-restricted diets containing wheat bran or ***cellulose*** .

L29 ANSWER 10 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 2000004034 EMBASE
TITLE: Butyl benzyl phthalate.
AUTHOR: Meek M.E.
CORPORATE SOURCE: M.E. Meek, Environmental Health Directorate, Health Canada, Ottawa, Ont., Canada
SOURCE: IPCS Concise International Chemical Assessment Documents, (1999) -/17 (1-41).
Refs: 182
ISSN: 1020-6167 CODEN: CCADFI
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB This CICAD on butyl benzyl phthalate was prepared jointly by the Environmental Health Directorate of Health Canada and the Commercial Chemicals Evaluation Division of Environment Canada based on documentation prepared concurrently as part of the Priority Substances Program under the Canadian Environmental Protection Act (CEPA). The objective of assessments on Priority Substances under CEPA is to assess potential effects of indirect exposure in the general environment on human health as well as environmental effects. Data identified as of the end of April 1998 were considered in these reviews. Information on the nature of the peer review and availability of the source document is presented in Appendix 1. Information on the peer review of this CICAD is presented in Appendix 2. This CICAD was approved as an international assessment at a meeting of the Final Review Board, held in Tokyo, Japan, on 30 June - 2 July 1998. Participants at the Final Review Board meeting are listed in Appendix 3. The International Chemical Safety Card (ICS 0834) for butyl benzyl phthalate, produced by the International Programme on Chemical Safety (IPCS, 1993) has also been reproduced in this document. Butyl benzyl phthalate (CAS No. 85-68-7), or BBP, is a clear, oily liquid that is used as a plasticizer mainly in polyvinyl chloride (PVC) for vinyl floor tile, vinyl foams, and carpet backing and to a minor extent also in ***cellulose*** plastics and polyurethane. Most environmental release is to the air. Once in the environment, BBP partitions to the atmosphere, soil, surface water, sediments, and biota and has been detected in each of these compartments. BBP is removed from the atmosphere by photo-oxidation and by rainwater, with a half-life of a few hours to a few days. BBP is not persistent in water, sediments, or soil under aerobic conditions, with a half-life of a few days. Under anaerobic conditions, BBP is more persistent, with a half-life of a few months. BBP is readily metabolized by vertebrates and invertebrates. Reported bioconcentration factors (BCFs) are less than 1000 based on total residues and well under 100 based on intact BBP residues. Available data in humans are inadequate to serve as a basis for assessment of the effects of long-term exposure to BBP in human populations. The acute toxicity of BBP is relatively low, with oral LD50 values in rats being greater than 2 g/kg body weight. Target organs following acute exposure include the haematological and central nervous systems. Available data are inadequate to assess the irritant and sensitizing effects of BBP in animal species. The repeated-dose toxicity of BBP has been well investigated in recent studies, primarily in the rat,

These estimates are 200-650 times less than the TDI. Data were inadequate to estimate exposure in the occupational environment or from consumer products. A range of toxicity tests with aquatic organisms has indicated that adverse effects occur at exposure concentrations equal to or greater than 100 .mu.g/litre. As concentrations in surface in surface waters are generally less than 1 .mu.g/litre, it is likely that BBP poses low risk to aquatic organisms. No information about the effects of BBP on sediment-dwelling organisms, soil invertebrates, terrestrial plants, or birds has been identified on which to base an estimate of risk to these organisms.

L29 ANSWER 11 OF 45 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 1999108381 MEDLINE
DOCUMENT NUMBER: 99108381
TITLE: Comparative anticancer effects of vaccination and ***dietary*** factors on experimentally-induced cancers.
AUTHOR: Zusman I
CORPORATE SOURCE: Laboratory of Teratology and Experimental Oncology, Koret School of Veterinary Medicine, Faculty of Agriculture, Food and Environmental Quality Sciences, Hebrew University of Jerusalem, Rehovot, Israel.
SOURCE: IN VIVO, (1998 Nov-Dec) 12 (6) 675-89. Ref: 186
Journal code: A6F. ISSN: 0258-851X.
PUB. COUNTRY: Greece
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199906
ENTRY WEEK: 19990604

AB The role of two major factors were analyzed in the ***prevention*** of experimentally-induced cancers: a) vaccination of animals with polyclonal IgG generated against the soluble p53 antigen and b) feeding of animals with diets rich with ***dietary*** fibers or fat. a) In vaccination, a few attempts have been made to utilize p53 protein as a ***tumor*** suppressor. IgG generated against the cytoplasmic, soluble p53 antigen from ***tumor*** -bearing rats ***prevents*** the carcinogenic effect of 1,2-dimethylhydrazine (DMH) decreasing significantly the number of ***tumor*** -bearing rats in vaccinated group compared with non vaccinated controls and ***preventing*** benign tumors from becoming malignant. The antitumor effect of vaccination is accompanied by a significant increase in the serum-level of p53 antigen in vaccinated rats compared with non vaccinated controls. The immune response of a host to vaccination activates the lymph components of the spleen, and this activation is manifested by the multiplication of the number of lymphocytes which are generated against specific antigens. This multiplication is achieved by the higher division of the antigen-specific lymphoblasts with their subsequent transformation into plasma cells. These cells synthesize the specific protein (IgG). One such protein is the ***tumor*** -associated p53 protein, which is synthesized by rats against rabbit anti-p53 IgG. b) The role of ***dietary*** factors in the ***prevention*** of chemically induced ***cancer*** was reviewed on two models: the role of high fiber diets in ***prevention*** of colon ***cancer*** , and the role of high fat diets in the ***prevention*** of ***mammary*** gland ***cancer*** . Experiments in colon ***cancer*** showed that 20% ***cellulose*** decreased significantly ***tumor*** ***incidence*** caused by DMH. The ***tumor*** - ***preventive*** effect of a ***cellulose*** ***diet*** was accompanied by increased enzyme concentrations, such as ornithine decarboxylase, thymidine kinase and beta-glucuronidase. This effect was accompanied by activation of some cellular mechanisms, i.e. apoptosis, proliferating cell nuclear antigen (PCNA) and p53 protein synthesis. Experiments in ***mammary*** glands ***cancer*** showed that a 15% olive-oil ***diet*** reduced significantly the ***tumor*** ***incidence*** caused by 9,10-dimethyl-1,2-benzanthracene. The antitumor effect of the olive-oil ***diet*** was connected to its content of monounsaturated fatty acids, such as oleic and palmitic acids. The promotive tumorigenic effects of other high-fat diets (avocado, soybeans) were associated with high content of some polyunsaturated fatty acids (linoleic and alpha-linolenic). Different diets have different targets. The effect of the same ***diet*** depends on its anti- ***tumor*** substances content. CONCLUSIONS: Vaccination and some diets have similar mechanism in their ***tumor*** - ***preventive*** effects.

L29 ANSWER 12 OF 45 MEDLINE
ACCESSION NUMBER: 1998382344 MEDLINE
DOCUMENT NUMBER: 98382344
TITLE: Fiber intake and risk of ***colorectal*** ***cancer*** .
AUTHOR: Negri E; Franceschi S; Parpinel M; La Vecchia C
CORPORATE SOURCE: Istituto di Ricerche Farmacologiche Mario Negri, Milan, Italy.
SOURCE: CANCER EPIDEMIOLOGY, BIOMARKERS AND PREVENTION, (1998 Aug) 7 (8) 667-71.
Journal code: BNJ. ISSN: 1055-9965.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199901
ENTRY WEEK: 19990104
AB The relationship between various types of fiber and ***colorectal*** ***cancer*** risk was investigated using data from a case-control study conducted between January 1992 and June 1996 in Italy. The study included 1953 cases of incident, histologically confirmed ***colorectal*** cancers (1225 colon cancers and 728 rectal cancers) admitted to the major teaching and general hospitals in the study areas and 4154 controls with no history of ***cancer*** admitted to hospitals in the same catchment areas for acute nonneoplastic diseases. ***Dietary*** habits were investigated using a validated food frequency questionnaire. Odds ratios (ORs) were computed after allowance for age, sex, and other potential confounding factors, including physical activity and protein, fat, and carbohydrate intake. Fiber was analyzed both as a continuous variable and in quintiles. For most types of fiber, the OR of colon and rectal cancers was significantly below 1, and no appreciable differences emerged between the two. When the unit was set at the difference between the upper cutpoints of the fourth and first quintile, i.e., the 80th and 20th percentiles, the ORs for ***colorectal*** ***cancer*** were 0.68 for total fiber (determined by the Englyst method as nonstarch polysaccharides), 0.67 for soluble noncellulose polysaccharides (NCPs), 0.71 for total insoluble fiber, 0.67 for ***cellulose*** , 0.82 for insoluble NCPs, and 0.88 for lignin. When fiber was classified according to the source, the OR was 0.75 for vegetable fiber, 0.85 for fruit fiber, and 1.09 for cereal fiber. The ORs were similar for the two sexes and the strata of age, education, physical activity, family history of ***colorectal*** ***cancer*** , and energy intake. Likewise, no appreciable differences emerged when subsites of the colon and rectum were investigated separately. This study provides additional support for a protective and independent effect of fiber on ***colorectal*** ***cancer*** , particularly for ***cellulose*** and soluble NCPs, and of fiber of vegetable or fruit origin.

L29 ANSWER 13 OF 45 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 1998360187 MEDLINE
DOCUMENT NUMBER: 98360187
TITLE: ***Dietary*** factors and ***prevention*** of colon ***cancer*** .
AUTHOR: Kenji T; Hedio O; Yasuharu O; Iwao Y; Tomohiro S; Katsuya Y; Kiichi M; Shigeru T; Hideki A
CORPORATE SOURCE: School of Nursing, Second Department of Surgery, Toyama Medical & Pharmaceutical University, Japan.
SOURCE: NIPPON GEKA GAKKAI ZASSHI. JOURNAL OF JAPAN SURGICAL SOCIETY, (1998 Jun) 99 (6) 368-72. Ref: 25
Journal code: NGG. ISSN: 0301-4894.
PUB. COUNTRY: Japan
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199811
ENTRY WEEK: 19981103
AB Even when the causative factors are known, ***cancer*** may still occur in some circumstances. Many mutagenic substances occur in food. The carcinogenic potential of food compounds in humans is not yet clear. If they do play a role in the occurrence of ***cancer*** , it would be exceedingly difficult to remove them from the environment. ***Dietary*** fiber is generally believed to protect against ***colorectal*** ***cancer*** . Burkitt first proposed the fiber hypothesis based on his

observation of low colon ***cancer*** rates in regions of Africa where fiber intake is high. Some case control studies of ***colorectal*** ***cancer*** have pointed the beneficial effect of total ***dietary*** fiber. ***Dietary*** fiber consists of plant cell wall polysaccharides and liginin, which are not hydrolyzable by human digestive enzymes, and includes pectin, ***cellulose*** , and hemicellulose. Several plausible physical and biochemical mechanisms for the beneficial effect of ***dietary*** fiber have been proposed. The risk of ***colorectal*** ***cancer*** decreases with high intake of total fiber and increased with diets high in animal fat.

L29 ANSWER 14 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998186147 EMBASE
TITLE: Soluble and insoluble fiber influences on ***cancer*** development.
AUTHOR: Moore M.A.; Park C.B.; Tsuda H.
CORPORATE SOURCE: M.A. Moore, Chemotherapy Division, Natl. Can. Center Research Institute, 5-1-1 Tsukiji Chuo-ku, Tokyo 104, Japan. mmoore@gan2.ncc.go.jp
SOURCE: Critical Reviews in Oncology/Hematology, (1998) 27/3 (229-242).
Refs: 159
ISSN: 1040-8428 CODEN: CCRHEC
PUBLISHER IDENT.: S 1040-8428(98)00006-7
COUNTRY: Ireland
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
LANGUAGE: English

L29 ANSWER 15 OF 45 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 1998239886 MEDLINE
DOCUMENT NUMBER: 98239886
TITLE: [Experimental tests and clinical trials of the biologically active food additive Fibromed].
Eksperimental'naia i klinicheskaia aprobatsiia biologicheski aktivnoi dobavki k pishche Fibromed.
AUTHOR: Bespalov V G; Aksenov A V; Ovsianikov A I; Petrov A S; Simonov N N; Aleksandrov V A
CORPORATE SOURCE: N.N. Petrov Research Institute of Oncology, Ministry of the RF; St. Petersburg.
SOURCE: VOPROSY ONKOLOGII, (1998) 44 (1) 86-91.
Journal code: XJU. ISSN: 0507-3758.
PUB. COUNTRY: RUSSIA: Russian Federation
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199808
ENTRY WEEK: 19980801
AB A biologically active food additive--Fibromed--has been tested experimentally and clinically. The additive made from wheat bran by the Reacon Company contains no less than 40% of ***dietary*** fibre (***cellulose*** , hemicellulose and lignin). Its effect on multi-organ ***carcinogenesis*** induced by N-methyl-N-nitrosourea (MNU) and lipid metabolism was tested in rats. Tumors were induced by combined intramammary injections and intrarectal infusions of the agent. Fibromed was fed (20% by weight) during post-initiation period. It effectively inhibited the development of ***mammary*** and colonic tumors and reduced serum-blood cholesterol, triglycerides and beta-lipoproteids. The influence of Fibromed treatment on stool during early post-operative period was studied in surgical cases of ***colorectal*** ***cancer*** . When administered in a dose of 60 g, daily, starting from days 4-5, Fibromed restored intestinal function 36 hr earlier than in controls. Fibromed should be recommended for ***prevention*** of ***breast*** and colonic tumors, lipid metabolism disorders and rehabilitation of patients who underwent surgery for ***colorectal*** ***cancer*** .

L29 ANSWER 16 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1998237295 EMBASE
TITLE: Physicochemical environment of the colon.
AUTHOR: Evans D.F.
CORPORATE SOURCE: D.F. Evans, St. Bartholomew's/the Royal London, School of Medicine and Dentistry, GI Science Research Unit, 26

Ashfield Street, London E1 2AJ, United Kingdom
SOURCE: European Journal of Cancer Prevention, (1998) 7/SUPPL. 2 (S79-S80).
Refs: 10
ISSN: 0959-8278 CODEN: EJUPEK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Epidemiological evidence suggests that 80-90% of ***colorectal*** ***cancer*** is caused by ***dietary*** and environmental factors and that the prevalence of ***cancer*** can be altered in low-risk patients by long-term alterations in ***dietary*** fibre ingestion. It has therefore become increasingly important to examine the available data on colonic pH and transit, and on faecal short-chain fatty acids in different groups, in order to establish the relationship between fibre intake, colonic acidification and the predisposition to ***cancer*** in different ethnic groups.

L29 ANSWER 17 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 6
ACCESSION NUMBER: 97315647 EMBASE
DOCUMENT NUMBER: 1997315647
TITLE: The role of ***dietary*** factors in ***prevention*** of chemically-induced cancers (Review).
AUTHOR: Madar Z.; Zusman I.
CORPORATE SOURCE: Prof. I. Zusman, LTEO, Koret School of Veterinary Medicine, Hebrew University of Jerusalem, P.O. Box 12, Rehovot 76100, Israel
SOURCE: International Journal of Oncology, (1997) 11/5 (1141-1148).
Refs: 89
ISSN: 1019-6439 CODEN: IJONES
COUNTRY: Greece
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
029 Clinical Biochemistry
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The role of ***dietary*** factors in ***prevention*** of chemically-induced ***cancer*** was reviewed on two models: i) the role of high fiber diets in ***prevention*** of colon ***cancer*** and ii) the role of high fat diets in ***prevention*** of ***mammary*** gland ***cancer*** . i) Experiments in colon ***cancer*** showed that 20% ***cellulose*** content decreased ***tumor*** ***incidence*** caused by 1,2-dimethylhydrazine (DMH) to 33% compared with 92% of tumors developed in animals fed a fiber-free ***diet*** . The ***tumor*** - ***preventive*** effect of a ***cellulose*** ***diet*** was accompanied by increased enzyme concentrations, such as ornithine decarboxylase, thymidine kinase and .beta.-glucuronidase. Corncob fiber (15%), treated with the fungus Pleurotus os., had a significant protective effect against DMH-induced rat colon ***cancer*** . This effect was accompanied by activation of some cellular mechanisms, i.e. apoptosis, proliferating cell nuclear antigen (PCNA) and p53 protein synthesis. A high positive correlation was found between ***tumor*** grade and p53 protein in the serum (r=0.97) or in the cell cytoplasm (r=0.77), and between ***tumor*** grade and PCNA (r=0.81). An inverse relationship was found between ***tumor*** grade and apoptosis (r=-0.63). ii) Experiments in ***mammary*** gland ***cancer*** showed that a 15% olive-oil ***diet*** reduced ***tumor*** ***incidence*** caused by 9,10- dimethyl-1,2-benzanthracene to 30%, compared with 55% in the control group. The antitumor effect of the olive oil ***diet*** was connected to its content of monounsaturated fatty acids, such as oleic and palmitic acids. The promotive tumorigenic effects of other high-fat diets (avocado, soybeans) were associated with high content of some polyunsaturated fatty acids (linoleic and .alpha.-linolenic). We concluded that different diets have different targets. The effect of the same ***diet*** depends on its content of anti- ***tumor*** substances.

L29 ANSWER 18 OF 45 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 1998005550 MEDLINE
DOCUMENT NUMBER: 98005550
TITLE: ***Dietary*** fiber and ***colorectal***

cancer risk.

AUTHOR: Le Marchand L; Hankin J H; Wilkens L R; Kolonel L N; Englyst H N; Lyu L C

CORPORATE SOURCE: Etiology Program, University of Hawaii Cancer Research Center, Honolulu, USA.

CONTRACT NUMBER: P01-CA-33619 (NCI)
NO1-CN-05223 (NCI)

SOURCE: EPIDEMIOLOGY, (1997 Nov) 8 (6) 658-65.
Journal code: A2T. ISSN: 1044-3983.

PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199803

ENTRY WEEK: 19980303

AB We conducted a population-based case-control study among different ethnic groups in Hawaii to evaluate the role of various types and components of fiber, as well as micronutrients and foods of plant origin, on the risk of ***colorectal*** ***cancer*** . We administered personal interviews to 698 male and 494 female Japanese, Caucasian, Filipino, Hawaiian, and Chinese cases diagnosed during 1987-1991 with adenocarcinoma of the colon or rectum and to 1,192 population controls matched to cases by age, sex, and ethnicity. We used conditional logistic regression to estimate odds ratios, adjusted for caloric intake and other covariates. We found a strong, dose-dependent, inverse association in both sexes with fiber intake measured as crude fiber, ***dietary*** fiber, or nonstarch polysaccharides. We found inverse associations of similar magnitude for the soluble and insoluble fiber fractions and for ***cellulose*** and noncellulosic polysaccharides. This protective effect of fiber was limited to fiber from vegetable sources, with an odds ratio of 0.6 (95% confidence interval = 0.4-0.9) and 0.5 (95% confidence interval = 0.3-0.7) for the highest compared with the lowest quartile of intake for men and women, respectively. We found associations of the same magnitude for soluble and insoluble vegetable fiber, but no clear association with fiber from fruits or cereals. This pattern was consistent between sexes, across segments of the large bowel (right colon, left colon, and rectum), and among most ethnic groups. The effect of vegetable fiber may be independent of the effects of other phytochemicals, since the effect estimates remained unchanged after further adjustment for other nutrients. Intakes of carotenoids, light green vegetables, yellow-orange vegetables, broccoli, corn, carrots, bananas, garlic, and legumes (including soy products) were inversely associated with risk, even after adjustment for vegetable fiber. The data support a protective role of fiber from vegetables against ***colorectal*** ***cancer*** , which appears independent of its water solubility property and of the effects of other phytochemicals. The data also indicate that certain vegetables and fruits may be protective against this disease through mechanisms other than their fiber content.

L29 ANSWER 19 OF 45 MEDLINE DUPLICATE 8

ACCESSION NUMBER: 97407528 MEDLINE

DOCUMENT NUMBER: 97407528

TITLE: Transforming growth factor alpha distribution in rectal crypts as a biomarker of decreased colon ***cancer*** risk in patients consuming ***cellulose*** .

AUTHOR: Hardman W E; Cameron I L; Beer W H; Speeg K V; Kadakia S C; Lang K A

CORPORATE SOURCE: Department of Cellular and Structural Biology, University of Texas Health Science Center, San Antonio 78284-7762, USA.

SOURCE: CANCER EPIDEMIOLOGY, BIOMARKERS AND PREVENTION, (1997 Aug) 6 (8) 633-7.
Journal code: BNJ. ISSN: 1055-9965.

PUB. COUNTRY: United States
(CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(MULTICENTER STUDY)
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199712

ENTRY WEEK: 19971203

AB Data from rat experimental ***carcinogenesis*** studies indicate that supplemental ***dietary*** ***cellulose*** reduces the ***incidence*** of colon ***cancer*** . Epidemiology studies also indicate that high ***dietary*** fiber reduces the risk of

colorectal ***cancer*** in humans. Patients diagnosed with sporadic adenomas were entered into a randomized clinical trial to determine if supplemental ***dietary*** ***cellulose*** would reduce the patients' risk for colon ***cancer*** . Immunohistochemical staining for transforming growth factor alpha (TGF-alpha) was done on biopsies of rectal mucosa taken from patients at the time of initial polypectomy and 1 year later. Results were evaluated for utility as a surrogate end point biomarker for reduction in colon ***cancer*** risk. There was a significant decrease in the fraction of the rectal crypt cells that stained for TGF-alpha in six of seven of the patients given the ***cellulose*** supplements but in only one of six of the patients not given ***cellulose*** . Thus, whether evaluated as a group or in individual patients, there was a significant decrease in TGF-alpha in rectal crypts due to ***cellulose*** intervention, which correlated with the expected ability of supplemental ***dietary*** ***cellulose*** to decrease the risk for colon ***cancer*** . Long-term testing of the ability of ***dietary*** ***cellulose*** to reduce adenoma recurrence is under way to validate the use of TGF-alpha as a surrogate end point biomarker.

L29 ANSWER 20 OF 45 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 1998157540 MEDLINE
DOCUMENT NUMBER: 98157540
TITLE: Micronutrients and ***breast*** ***cancer*** .
AUTHOR: Franceschi S
CORPORATE SOURCE: Servizio di Epidemiologia, Centro di Riferimento Oncologico, Aviano, Italy.
SOURCE: EUROPEAN JOURNAL OF CANCER PREVENTION, (1997 Dec) 6 (6) 535-9. Ref: 38
Journal code: BNN. ISSN: 0959-8278.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199805
ENTRY WEEK: 19980502
AB A large part of the epidemiological debate on ***diet*** and ***breast*** ***cancer*** has been dominated by the issue of whether fat, particularly animal fat, increases risk. Lately, the possible protective effect of various ***dietary*** constituents has received more attention. Vitamins C and E, and beta-carotene have antioxidant activity and may thus provide a cellular defence against reactive oxygen species that damage DNA. ***Dietary*** fibre may influence oestrogen metabolism. A large case-control study (2,569 ***breast*** ***cancer*** and 2,588 hospital controls) conducted in six Italian areas between 1991 and 1994 suggested that a ***diet*** rich in several micronutrients was associated with significantly lowered risk. After allowance for non- ***dietary*** risk correlates, energy intake and the mutual confounding effect of the various micronutrients, beta-carotene, vitamin E and calcium were associated with odds ratios in the highest intake quintile compared to the lowest one of 0.84, 0.75 and 0.81, respectively. Among different types of fibre, only ***cellulose*** intake showed a moderate inverse association. Evidence from other studies suggests that a favourable role of some micronutrients is possible, albeit probably less important than for cancers of the stomach and colon-rectum. Indeed, the relationship between fruit and vegetable intake is also less marked/consistent for ***breast*** ***cancer*** than for other sites. Among agents that have only recently been investigated, isoflavones, which are weak oestrogens, are of particular interest.

L29 ANSWER 21 OF 45 MEDLINE DUPLICATE 10
ACCESSION NUMBER: 1998003763 MEDLINE
DOCUMENT NUMBER: 98003763
TITLE: Fibers and ***breast*** ***cancer*** risk.
AUTHOR: La Vecchia C; Ferraroni M; Franceschi S; Mezzetti M; Decarli A; Negri E
CORPORATE SOURCE: Istituto di Ricerche Farmacologiche Mario Negri, Milan, Italy.
SOURCE: NUTRITION AND CANCER, (1997) 28 (3) 264-9.
Journal code: O94. ISSN: 0163-5581.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
(MULTICENTER STUDY)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199801
ENTRY WEEK: 19980104
AB Data from a multicenter case-control study on ***breast*** ***cancer*** conducted in Italy were used to analyze the relationship between various types of fibers and ***breast*** ***cancer*** risk. Cases were 2,569 women with histologically confirmed, incident ***breast*** ***cancer*** ; controls were 2,588 women admitted to the same network of hospitals for acute, nonneoplastic, non-hormone-related diseases. Cases and controls were interviewed between 1991 and 1994 using a validated food frequency questionnaire. The data were modeled through multiple logistic regression, controlling for demographic and reproductive ***breast*** ***cancer*** risk factors. The continuous odds ratios for the difference between the upper cut point of the fourth and the first quintile of intake were 0.90 [95% confidence interval = 0.82-0.98, p (for trend) < 0.05] for ***cellulose*** and 0.94 (95% confidence interval = 0.86-1.02) for soluble fibers. The protection tended to be stronger in premenopausal women. No material association was found for noncellulose polysaccharides and lignin. This study, based on a large data set from various Italian regions, suggests that fiber intake may confer some protection against ***breast*** ***cancer*** , particularly for ***cellulose*** and also for soluble fibers, i.e., those of vegetable origin. This possible protection has been related to an influence of fibers on levels and availability of estrogens and other steroid hormones in ***breast*** ***carcinogenesis*** .

L29 ANSWER 22 OF 45 MEDLINE DUPLICATE 11
ACCESSION NUMBER: 97335400 MEDLINE
DOCUMENT NUMBER: 97335400
TITLE: Nutrition and ulcerative colitis.
AUTHOR: Burke A; Lichtenstein G R; Rombeau J L
CORPORATE SOURCE: Department of Medicine, Hospital of the University of Pennsylvania, Philadelphia 19104, USA.
SOURCE: BAILLIERES CLINICAL GASTROENTEROLOGY, (1997 Mar) 11 (1) 153-74. Ref: 118
Journal code: BBG. ISSN: 0950-3528.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199710
ENTRY WEEK: 19971002
AB The role of ***diet*** in the aetiology and pathogenesis of ulcerative colitis (UC) remains uncertain. Impaired utilization by colonocytes of butyrate, a product of bacterial fermentation of ***dietary*** carbohydrates escaping digestion, may be important. Sulphur-fermenting bacteria may be involved in this impaired utilization. Oxidative stress probably mediates tissue injury but is probably not of causative importance. Patients with UC are prone to malnutrition and its detrimental effects. However, there is no role for total parenteral nutrition and bowel rest as primary therapy for UC. The maintenance of adequate nutrition is very important, particularly in the peri-operative patient. In the absence of massive bleeding, perforation, toxic megacolon or obstruction, enteral rather than parenteral nutrition should be the mode of choice. Nutrients may be beneficial as adjuvant therapy. Butyrate enemas have improved patients with otherwise recalcitrant distal colitis in small studies. Non- ***cellulose*** fibre supplements are of benefit in rats with experimental colitis. Eicosapentaenoic acid in fish oil has a steroid-sparing effect which, although modest, is important, particularly in terms of reducing the risk of osteoporosis, but it seems to have no role in the patient with inactive disease. gamma-Linolenic acid and anti-oxidants also are showing promise. Nutrients may also modify the increased risk of ***colorectal*** carcinoma. Oxidative stress can damage tissue DNA but there are no data published at present on possible protection from oral anti-oxidants. Butyrate protects against experimental ***carcinogenesis*** in rats with experimental colitis. Folate supplementation is weakly associated with decreased ***incidence*** of ***cancer*** in UC patients when assessed retrospectively. Vigilance should be maintained for increased micronutrient requirements and supplements given as appropriate. Calcium and low-dose vitamin D should be given to patients on long-term steroids and folate to those on sulphasalazine.

L29 ANSWER 30 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 95065757 EMBASE
DOCUMENT NUMBER: 1995065757
TITLE: Health implications of ***dietary*** fiber.
AUTHOR: Sause R.B.
CORPORATE SOURCE: Coll. Pharm./Allied Hlth. Prof., St. John's University,Jamaica, NY, United States
SOURCE: U.S. Pharmacist, (1995) 20/2 (32+34+36+39+40+42+44). ISSN: 0148-4818 CODEN: USPHD5
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB ***Dietary*** fiber refers to the total amount of naturally occurring material in foods that is not digested. The material comes mostly from plant cell walls and is resistant to digestion by the digestive enzymes. ***Dietary*** fiber proves valuable in nutrition and is useful in ***preventing*** or treating certain disease states. High fiber diets are associated with lower serum cholesterol levels, lower risk of coronary heart disease (CHD), reduced blood pressure, enhanced weight control, better glycemic control, reduced risk of certain forms of ***cancer*** and improved gastrointestinal function.

L29 ANSWER 31 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 95331020 EMBASE
DOCUMENT NUMBER: 1995331020
TITLE: ***Colorectal*** ***cancer*** and intake of ***dietary*** fibre. A summary of the epidemiological evidence.
AUTHOR: Kaaks R.; Riboli E.
CORPORATE SOURCE: Programme of Nutrition and Cancer, Int. Agency for Research on Cancer, 150 cours Albert-Thomas,69372 Lyon Cedex 08, France
SOURCE: European Journal of Clinical Nutrition, (1995) 49/SUPPL. 3 (S10-S17). ISSN: 0954-3007 CODEN: EJCNEQ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
048 Gastroenterology
LANGUAGE: English

L29 ANSWER 32 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 94176785 EMBASE
DOCUMENT NUMBER: 1994176785
TITLE: [***Dietary*** fibers]. LES FIBRES ALIMENTAIRES.
AUTHOR: Alary J.
CORPORATE SOURCE: Universite Joseph-Fourier, UFR de Pharmacie de Grenoble, Chimie Analytique et Bromatologie,38706 La Tronche Cedex, France
SOURCE: Lyon Pharmaceutique, (1994) 45/3 (141-148). ISSN: 0024-7804 CODEN: LYPHAD
COUNTRY: France
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
048 Gastroenterology
037 Drug Literature Index
LANGUAGE: French
SUMMARY LANGUAGE: French; English
AB ***Dietary*** fibers are defined and the different types are described. These ***dietary*** constituents are either polysaccharides, such as ***cellulose*** , hemicellulose, pectinic substances, mucilages, gums or lignine, ie phenolic polymers. Alimentary sources of these fibers, such as cereals, fruits and vegtables are presented. Analytical methods applied to the determination of fibers in foods are described. Their physiological properties are related to their physicochemical characteristics and particularly to their solubility or non-solubility in water. At the level of the digestive tract food fibers interfere with the gastric discharge and modify intestinal transit and stools weight. The therapeutic benefit of fibers is discussed. They reduce chronic constipation and they also ***prevent*** both colical

diverticulose and ***colorectal*** ***cancer*** . They give a sensation of satiety and thus are useful as adjuvant treatment against obesity. ***Dietary*** fibers also act on lipidic and glucidic metabolism since they decrease both cholesterol blood concentration and glycemic and insulinic responses. Many ***dietary*** products sold in drugstores comprise various types of blood fibers. Directions and conditions for their use are discussed.

L29 ANSWER 33 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 93244923 EMBASE
DOCUMENT NUMBER: 1993244923
TITLE: ***Colorectal*** ***cancer*** .
AUTHOR: Bingham S.
CORPORATE SOURCE: The Medical Research Council, Dunn Clinical Nutrition Centre,Cambridge, United Kingdom
SOURCE: European Journal of Gastroenterology and Hepatology, (1993) 5/8 (574-577).
ISSN: 0954-691X CODEN: EJGHES
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; (Short Survey)
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB ***Dietary*** factors are strongly associated with ***colorectal*** ***cancer*** ***incidence*** rates, but direct evidence for the involvement of ***diet*** in chromosomal damage and the adenoma-carcinoma sequence is awaited. In populations consuming high levels of meat and fat, the estimated risk for large bowel ***cancer*** attributable to low levels of non-starch polysaccharides (***dietary*** fibre) is currently 35%. Risk is also inversely related to stool weight and, based on this, recent ***dietary*** guidelines recommend a population average intake of 18g non-starch polysaccharides per day, which is a 50% increase for most Western societies, in order to reduce bowel problems including ***cancer*** . Starch is probably as important as non-starch polysaccharides in protection against ***colorectal*** ***cancer*** via its effect on fermentation and increased butyrate production.

L29 ANSWER 34 OF 45 MEDLINE DUPLICATE 15
ACCESSION NUMBER: 94049907 MEDLINE
DOCUMENT NUMBER: 94049907
TITLE: ***Dietary*** fibre: its composition and role in protection against ***colorectal*** ***cancer*** .
AUTHOR: Harris P J; Ferguson L R
CORPORATE SOURCE: School of Biological Sciences, University of Auckland, New Zealand..
SOURCE: MUTATION RESEARCH, (1993 Nov) 290 (1) 97-110. Ref: 70
Journal code: NNA. ISSN: 0027-5107.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199402
AB ***Dietary*** fibre has a complex and highly variable composition. Although some ***dietary*** fibres may protect against ***colorectal*** ***cancer*** , it is unlikely that all are equally protective. ***Dietary*** fibre is principally composed of plant cell walls, but it also includes components obtained from cell walls (e.g. ***cellulose*** , pectin, and lignin), and non-starch polysaccharides (NSPs) from other sources (e.g. seaweeds and micro-organisms). The AOAC and Englyst methods are commonly used to determine the total amount of ***dietary*** fibre in foods. Most of the cell walls in food plants are from parenchyma cells, which are extensively degraded by bacteria in the colon. Cell types with walls containing the hydrophobic polymers lignin, suberin, or cutin also occur in food plants in small numbers, but they may be important in ***preventing*** ***colorectal*** ***cancer*** . Lignin, and possibly the other polymers, protect these walls from degradation. Epidemiological, human intervention, and animal studies can be used to try to identify the most protective ***dietary*** fibres. Epidemiological studies are difficult to interpret because usually only the total amount of ***dietary*** fibre eaten is reported.

Intervention studies indicate that wheat bran ***dietary*** fibre may be protective. The results of animal ***carcinogenesis*** studies are variable, but sources of insoluble ***dietary*** fibres, including wheat bran, appear more protective than soluble ***dietary*** fibres, and some ***dietary*** fibres appear to enhance ***carcinogenesis*** . Possible mechanisms for protection by ***dietary*** fibres can be divided into two groups: those where the ***dietary*** fibre is acting directly, and those which result from the ***dietary*** fibre being degraded by colonic bacterial enzymes and the products fermented. Possible direct mechanisms include the binding of carcinogens to undegradable ***dietary*** fibres, and the absorption of water by undegradable ***dietary*** fibre resulting in increased faecal bulk and shortened transit times. Possible indirect mechanisms include the lowering of the colon pH by the short-chain fatty acids produced by bacterial fermentation, and the specific effects of butyrate. There are also a number of possible mechanisms by which some ***dietary*** fibres may enhance ***carcinogenesis*** . Use of better defined ***dietary*** fibres will increase our understanding of the role of ***dietary*** fibres in modulating ***colorectal*** ***cancer*** .

L29 ANSWER 35 OF 45 MEDLINE DUPLICATE 16
ACCESSION NUMBER: 93189399 MEDLINE
DOCUMENT NUMBER: 93189399
TITLE: The effects of soluble-fiber polysaccharides on the adsorption of a hydrophobic carcinogen to an insoluble ***dietary*** fiber.
AUTHOR: Harris P J; Roberton A M; Watson M E; Triggs C M; Ferguson L R
CORPORATE SOURCE: Department of Botany, University of Auckland, New Zealand..
SOURCE: NUTRITION AND CANCER, (1993) 19 (1) 43-54.
Journal code: O94. ISSN: 0163-5581.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199306
AB ***Dietary*** fiber is believed to decrease the ***incidence*** of ***colorectal*** ***cancer*** , but not all types of fiber are equally protective. ***Dietary*** fibers may be divided broadly into insoluble and soluble fibers, and there is evidence from animal experiments that the latter not only fails to protect against ***colorectal*** ***cancer*** but may enhance its development. Adsorption of carcinogens to insoluble ***dietary*** fiber in the intestinal tract is one of the mechanisms by which ***dietary*** fiber is believed to protect against ***colorectal*** ***cancer*** . In previous in vitro experiments, we showed that the hydrophobic carcinogen 1,8-dinitropyrene (DNP) adsorbs to insoluble plant cell wall components (insoluble ***dietary*** fibers). Soluble polysaccharides (pectic polysaccharides) extracted from the walls of parenchyma cells of dicotyledonous plants were found to maintain DNP in aqueous solutions and decrease its adsorption to insoluble wall components. In the present study, we examined a commercial preparation of pectin and seven other soluble-fiber polysaccharides with diverse structures for their effects on the distribution of DNP. Many of these are used as emulsifiers and stabilizers in the food industry. They all maintained DNP in aqueous solution and decreased its adsorption to alpha- ***cellulose*** , which we used as an example of an insoluble ***dietary*** fiber. Gum arabic was the most effective and kappa-carrageenan the least. The capacity of the polysaccharides to act as emulsifiers and stabilizers may explain their effects on DNP distribution. The monosaccharide glucose and the disaccharide cellobiose had no effect on the distribution of DNP. These results indicate three possible mechanisms by which soluble-fiber polysaccharides may enhance the development of ***colorectal*** ***cancer*** . First, because they reduce the ability of insoluble ***dietary*** fibers to adsorb hydrophobic carcinogens, more carcinogens may enter the colon maintained in solution than adsorbed onto insoluble fibers. Second, if soluble-fiber polysaccharides are maintaining hydrophobic carcinogens in solution and these polysaccharides are degraded by bacterial enzymes in the colon, then the carcinogens may come out of solution and be deposited onto the mucosal surface of the colon. Third, soluble-fiber polysaccharides may cross the intestinal epithelium and carry with them carcinogens maintained in solution. These studies have important consequences for nutrition, because soluble-fiber polysaccharides represent a common component of foods.

L29 ANSWER 36 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 91182481 EMBASE
DOCUMENT NUMBER: 1991182481
TITLE: In vitro binding of estrogens by ***dietary*** fiber and the in vivo apparent digestibility tested in pigs.
AUTHOR: Arts C.J.M.; Govers C.A.R.L.; Van Den Berg H.; Wolters M.G.E.; Van Leeuwen P.; Thijssen J.H.H.
CORPORATE SOURCE: Dept. Clinical Biochemistry, TNO-CIVO Toxicol./Nutr. Inst., P.O. Box 360,3700 AJ Zeist, Netherlands
SOURCE: Journal of Steroid Biochemistry and Molecular Biology, (1991) 38/5 (621-628).
ISSN: 0960-0760 CODEN: JSBBEZ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 002 Physiology
016 Cancer
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Within the framework of experiments related to the association between ***dietary*** fiber and ***breast*** ***cancer*** an in vitro test system was used to study the binding of estrogens to various fibers (e.g. cholestyramin, lignin and ***cellulose***) and fiber sources (e.g. wheat bran, cereals, seeds and legumes). Furthermore, the in vivo apparent digestibility of the different fiber sources was tested using a mobile nylon bag technique in intestine-cannulated pigs. Estradiol-17.beta. (E2) bound more strongly to the various fibers than did estrone (E1), estriol or estrone-3-glucuronide. At increasing pH (> 7) binding of both E1 and E2 to wheat bran decreased significantly. Cholestyramine and lignin bound almost all estrogens present in the medium. Linseed (91%), oats (83%), barley chaff (88%) and wheat bran (82%) are other excellent binders of E2. Corn, rye and white wheat flour showed lower binding capacity with a relatively low affinity. Cereals with the highest percentage of lignin in the fiber (> 3%) were also the fiber sources with the lowest apparent digestibility. Estrogens bound with the highest affinity (relative to bovine serum albumin) to these fiber sources. Together with wheat bran and lignin, oats, linseed and soybean seem to be products with good perspectives for in vivo evaluation of the lowering effect of ***dietary*** fiber on estrogen exposure of estrogen-sensitive tissues.

L29 ANSWER 37 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 91309919 EMBASE
DOCUMENT NUMBER: 1991309919
TITLE: ***Diet*** and the risk of ***breast*** ***cancer*** .
AUTHOR: Zaridze D.
CORPORATE SOURCE: All-Union Cancer Research Ctr., USSR Academy of Med. Sciences, 24 Kashirskoye Shosse,115478 Moscow, Russia
SOURCE: European Journal of Clinical Nutrition, (1991) 45/SUPPL. 2 (22-24).
ISSN: 0954-3007 CODEN: EJCNEQ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
LANGUAGE: English

L29 ANSWER 38 OF 45 MEDLINE
ACCESSION NUMBER: 91046064 MEDLINE
DOCUMENT NUMBER: 91046064
TITLE: Mechanisms and experimental and epidemiological evidence relating ***dietary*** fibre (non-starch polysaccharides) and starch to protection against large bowel ***cancer*** .
AUTHOR: Bingham S A
CORPORATE SOURCE: MRC Dunn Clinical Nutrition Centre, Cambridge..
SOURCE: PROCEEDINGS OF THE NUTRITION SOCIETY, (1990 Jul) 49 (2) 153-71. Ref: 123
Journal code: PW6. ISSN: 0029-6651.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199102

AB The cause of human colo-rectal ***cancer*** is unknown, although international and racial comparisons suggest that ***diet*** may be important. Within populations, risk of ***cancer*** is also affected by genetic factors which remain to be elucidated. ***Dietary*** fibre and NSP consumption is not always high in populations at low risk of colo-rectal ***cancer*** , but rates are fast increasing with westernization (and meat and fat consumption) in Japan. The suggestion that ***dietary*** fibre is protective in colo-rectal ***cancer*** is based on the fact that cereal fibre from bran increases faecal weight, dilutes large intestinal contents, and speeds up transit time. In animal models, bran reduces the number of tumours induced by chemical carcinogens, and ***cellulose*** may have a similar effect. The faeces of some individuals contain mutagens, some of which have been identified as fecapentaenes and heterocyclic amines. Bran reduces faecal mutagenicity, although the mutagen concerned is unknown. Most ***dietary*** fibre is fermented in the large gut by anaerobic bacteria and little remains in faecal matter. Recent observations have shown that substantial amounts of starch survive digestion in the small bowel and are available also for fermentation in the large gut. The metabolic consequences of fermentation may be important in ***carcinogenesis*** via altered N metabolism, SCFA production, and pH reduction. Methane is also produced in some individuals, but, contrary to previous findings, is not a risk factor for large bowel ***cancer*** . Starch appears to be beneficial as a substrate for fermentation because yields of the SCFA butyrate are increased both in vitro and in vivo. Butyrate is an energy substrate for the colonic mucosa and an anti-proliferative and differentiating agent in cell culture lines. Possible mechanisms whereby starch and NSP may protect against colo-rectal ***cancer*** , therefore, exist. The majority of individual case-control epidemiological studies suggest that fibre-containing foods are protective in colo-rectal ***cancer*** , although this effect is largely due to vegetable, rather than cereal, consumption. Case-control studies of ***diet*** and large bowel ***cancer*** may, however, reflect the effect rather than the cause of the disease, so that confirmation of the possible protective effects of starch and NSP is needed from accurate prospective studies both of ***diet*** and associated risk factors.

L29 ANSWER 39 OF 45 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 87202621 EMBASE
DOCUMENT NUMBER: 1987202621
TITLE: The impact of ***dietary*** fat and fiber on intestinal ***carcinogenesis*** .
AUTHOR: Nigro N.D.; Bull A.W.
CORPORATE SOURCE: Wayne State University, School of Medicine, Detroit, MI 48226, United States
SOURCE: Preventive Medicine, (1987) 16/4 (554-558).
CODEN: PVTMA3
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
048 Gastroenterology
LANGUAGE: English

AB The effect of ***dietary*** fiber on intestinal ***carcinogenesis*** in animals is controversial. Some find that the addition of wheat bran or ***cellulose*** inhibits intestinal ***cancer*** in rats, while others report no effect. Such mixed results often are due to differences in the design of experiments. One important aspect in this regard is the amount of fat in the ***diet*** . Some fiber supplements inhibit ***cancer*** formation when the fat content is normal but not when it is high. However, a recent epidemiological study in Scandinavia showed a lower ***cancer*** ***incidence*** in a rural population compared with an urban area, in spite of the fact that the ***dietary*** fat content was high in both regions. There was a modest difference in the amount of fiber, and this may not have accounted completely for the variation in ***cancer*** ***incidence*** . Other ***dietary*** factors might have added inhibitory response to help overcome the promotional effect of an excessive amount of fat. The interaction among ***dietary*** components must be considered when designing animal experiments to assess the effect of fiber on ***cancer*** development.

(29%). The target sites were the liver (42%), kidney (24%), intrapelvic organs (18%), lung (4%), head and neck (3%), bone (1%) and others (9%), excluding the central nervous system and gastrointestinal tract. The incidence of overall adverse effects ranged from 0.2 to 54.9%, but grade 2-3 hematological, renal and hepatic toxicities, local pain, abdominal discomfort, cutaneous reaction, remote embolization and infection were < 10%. Nine patients (0.9%) in the early stages of trials suffered serious complications including treatment-related death in two with critical underlying diseases of the target organs. The remaining patients recovered from the adverse effects, except for grade 2 cutaneous reactions, within 2 months by routine palliative measures. A .gtoreq. 50% ***tumor*** reduction was seen in 28% of 427 evaluable tumors (42% for < 25-cm2 tumors and 20% for .gtoreq. 25-cm2 tumors) with a median treatment number of one. The response rate depended on both the ***tumor*** size and the treatment number ($P < 0.05$), but it was not affected by prior therapies. Mitomycin C microcapsules produced a higher response rate. Complete or partial remission of intractable pain and genitourinary gross hemorrhage was found in two-thirds of eligible patients. The results indicate that this treatment modality, though restricted by catheter technique, can be applied to various ***tumor*** lesions with an acceptable morbidity and prospective trials are justified to evaluate the potential role of such a targeted chemotherapy.

L16 ANSWER 20 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96063170 EMBASE
DOCUMENT NUMBER: 1996063170
TITLE: UVB-irradiation of human bone marrow: Potential for donor specific tolerance.
AUTHOR: Noizat-Pirenne F.; Greenfeld J.I.; Hardy M.A.; Oluwole S.F.; De Groote D.; Franchimont P.
CORPORATE SOURCE: Department of Surgery, College of Physicians and Surgeons, Columbia University, 630 West 168th Street,New York, NY 10032, United States
SOURCE: Journal of Surgical Research, (1996) 61/1 (267-274).
ISSN: 0022-4804 CODEN: JSGRA2
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 025 Hematology
026 Immunology, Serology and Transplantation
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Bone marrow mononuclear cell (BMMC) transplant may serve to produce donor specific tolerance for a coincident solid organ graft, but with the risk of graft versus host disease (GVHD). We examined in vitro the immunomodulatory effect of UVB on human BMMCs as potential prophylaxis against GVHD for clinical transplantation. After 10-200 J/m2 UVB-irradiation, BMMCs were examined by proliferative response (in mixed lymphocyte reaction and following phytohemagglutinin stimulation) and by cytokine profile. We also evaluated CFU-GM, CFU-GEMM, and BFU-E progenitor viability by 2-week methyl ***cellulose*** cultures following UVB-irradiation. Parallel studies were applied to marrow that was T-cell depleted by soybean agglutination (SBA) or by SBA and sheep erythrocyte rosetting (SBA-E-). We found that (1) UVB produces a dose-dependent inhibition of the proliferative response to stimulators by human BMMCs; (2) increasing doses of UVB-irradiation and increasing levels of T-cell depletion (TCD) are both inversely related to production of lymphokines (IL2, IL3, LIF, IFN-.gamma., and GM-CSF) and (3) T-cell depletion, but not UVB-irradiation, decreases the production of monokines (IL1, TNF, IL6). Progenitor cell viability was decreased but preserved at 100 J/m2 of UVB. Our findings suggest that UVB compares favorably with TCD as a technique for inhibition of GVHD and therefore that UVB-modulation of bone marrow (BM) inoculum may be useful in the prevention of GVHD in clinical bone marrow transplantation accompanying a solid organ graft.

L16 ANSWER 21 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 96056404 EMBASE
DOCUMENT NUMBER: 1996056404
TITLE: Benefits of dietary fiber: Myth or medicine?.
AUTHOR: Bennett W.G.; Cerda J.J.
CORPORATE SOURCE: Division of Gastroenterology, University of Florida, PO Box 100214,Gainesville, FL 32610-0214, United States
SOURCE: Postgraduate Medicine, (1996) 99/2 (153-154+156+166-168+171-175).
ISSN: 0032-5481 CODEN: POMDAS
COUNTRY: United States

DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
AB In recent years, many health claims have been made about dietary and supplemental fiber. However, some reports (eg, those regarding oat bran) have been controversial. A review of scientifically rigorous studies shows that fiber has some preventive or therapeutic benefits in irritable bowel syndrome, diverticulosis, colorectal ***cancer*** , diabetes, and hypercholesterolemia. However, it appears to have no direct benefit in patients with inflammatory bowel disease, gallstones, or obesity. The United States has one of the lowest per capita intakes of fiber in the world. Therefore, increasing daily fiber intake either through diet or with supplements is recommended for most Americans. Consumer interest groups should lobby for more fiber-enriched foods. The challenge for education and healthcare professionals alike is to remold the nation's interest in and understanding of dietary fiber.

L16 ANSWER 22 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:622022 CAPLUS
DOCUMENT NUMBER: 123:31898
TITLE: Dietary fibers differ in their effects on large bowel epithelial proliferation and fecal fermentation-dependent events in rats
AUTHOR(S): Folino, Marisa; McIntyre, Ann; Young, Graeme P.
CORPORATE SOURCE: Univ. Melbourne Dep. Med., R. Melbourne Hosp., Melbourne, 3050, Australia
SOURCE: J. Nutr. (1995), 125(6), 1521-8
CODEN: JONUAI; ISSN: 0022-3166
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of different fiber types and processing on putative protective mechanisms for colorectal ***cancer*** were evaluated. Rats were fed diets of similar nutrient balance contg. either no added fiber or 10% fiber from various sources. The rate of distal colonic epithelial proliferation, measured by the metaphase arrest method, was dependent on fiber type; ranking of fibers from highest to lowest yielded the following order: ***methylcellulose*** > coarse wheat bran > fine wheat bran .apprxeq. parboiled and extruded rice brans > no fiber. Ranking of effect on fecal pH, from most to least acidic was as follows: coarse wheat bran .apprxeq. the rice brans > fine wheat bran > no fiber .apprxeq. ***methylcellulose*** . Coarse wheat bran gave significantly higher fecal butyrate concns. than did the rice brans, which in turn gave higher levels than fine wheat bran, ***methylcellulose*** and the no-fiber diet. Proximal colon epithelial proliferation was unaffected by diet although cecal shortchain fatty acid concns. and pH were affected. Different fibers have different effects on events in the fecal environment and distal colonic epithelium. Putative protective events (increased output, low fecal pH, high butyrate, low proliferation) are not equally affected and are unlikely in themselves to allow prediction of the protective effect of a fiber.

L16 ANSWER 23 OF 87 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 95366347 MEDLINE
DOCUMENT NUMBER: 95366347
TITLE: Experimental maxillofacial arterial chemoembolization with encased-cisplatin ***ethylcellulose*** microspheres.
AUTHOR: Yang J; Ma X C; Zou Z J; Wei S L
CORPORATE SOURCE: Department of Oral Pathology, Radiology, and Medicine, College of Dentistry, University of Iowa, Iowa City 52242, USA..
SOURCE: AJNR. AMERICAN JOURNAL OF NEURORADIOLOGY, (1995 May) 16 (5) 1037-41.
Journal code: 3AG. ISSN: 0195-6108.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199511
AB PURPOSE: To compare chemoembolization with conventional chemotherapy and explore the possibility of chemoembolization in the oral and maxillofacial region using encased-anticancer-drug microspheres. METHOD: Six mongrel dogs were divided into two equal groups, an experimental group undergoing maxillofacial arterial chemoembolization with cisplatin encased in

concentric decrease in ***tumor*** volume as well as the appearance of cystic, scarry, and necrotic areas in the ***tumor*** tissue as a result of HPC treatment. In addition, prior to, during and after therapy ***tumor*** perfusion can be assessed by color Doppler sonography in vivo. A more than 4-fold difference in HPC efficacy was observed when the colony growth of explanted MNU-induced mammary carcinoma cells was measured in the ***methylcellulose*** colony assay (IC50 = 180 mumol HPC/l) and the Hamburger Salmon colony assay (IC50 = 740 mumol HPC/l). In the latter assay, growth of concomitantly seeded untransformed cells, especially of fibroblasts, is much lower than in the methyl-***cellulose*** colony assay. We therefore assume that the antitumor efficacy of HPC against MNU-induced mammary carcinoma is enhanced by neighboring cells such as fibroblasts. Cell culture experiments with the three MNU-induced rat mammary carcinoma cell clones 1-C-2, 1-C-30, and 1-C-32 revealed IC50 values in the range of 50-70 mumol HPC/l. The volume of 1-C-2 cells increased up to 4-fold after 72 h of permanent exposure to 100 mumol HPC/l, a concentration that completely inhibited proliferation of ***tumor*** cell numbers without being cytotoxic. Nucleotide triphosphate levels dropped significantly after 24 h and were slowly restored in spite of continued exposure. After 72 h, they nearly reached those levels observed in plateau-phase cells. This suggests that HPC-induced growth inhibition has similarities with physiologically occurring growth arrest. Finally, replication of RNA viruses and DNA viruses was suppressed 30-fold and 7-fold, respectively, at low concentrations of HPC (12 mumol/l), which caused no or negligible growth inhibition in the virus-harboring cells, thus demonstrating specific antiviral activity of HPC. From these observations we conclude that HPC differs in many important aspects from conventional cytostatic agents and is certainly worth following-up in further investigations.

L16 ANSWER 30 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 93152117 EMBASE
DOCUMENT NUMBER: 1993152117
TITLE: Induction and characterization of mast cell colonies by culture supernatant of retinoic acid-treated mouse keratinocytes.
AUTHOR: Katayama I.; Yokozeki H.; Nishioka K.
CORPORATE SOURCE: Department of Dermatology, Tokyo Medical and Dental University, School of Medicine, 1-5-45 Yoshima,Bunkyo-ku, Tokyo 113, Japan
SOURCE: International Archives of Allergy and Immunology, (1993) 100/4 (328-332).
ISSN: 1018-2438 CODEN: IAAIEG
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB The retinoic acid-stimulated mouse-transformed epidermal cell line Pam 212 generated soluble mediators (RA-Pam sup) which showed mast cell-proliferating activity and induced mast cell-like colonies from bone marrow cells. Both mucosal-type and connective tissue-type mast cells were demonstrated on histochemical analysis. The 3T3 fibroblast cell line or human trichilemmomal cell line (TL1) also generated similar molecules on retinoic acid stimulation. Anti-stem cell factor antibody presented a rather more potent inhibitory activity on RA-Pam sup-dependent mast cell colony formation than did anti-IL3 and -IL4 antibodies. RA-Pam sup only induced mast cell colonies in semisolid culture and failed to promote mast cell growth in a suspension culture. In addition, mast cell colonies showed close contact with fibroblast-like cells on the methyl-***cellulose*** plate, but this finding was not observed in culture without RA-Pam sup.

L16 ANSWER 31 OF 87 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 93073390 EMBASE
DOCUMENT NUMBER: 1993073390
TITLE: The effects of soluble-fiber polysaccharides on the adsorption of a hydrophobic carcinogen to an insoluble dietary fiber.
AUTHOR: Harris P.J.; Roberton A.M.; Watson M.E.; Triggs C.M.; Ferguson L.R.
CORPORATE SOURCE: Department of Botany, University of Auckland,Auckland, New

Zealand
SOURCE: Nutrition and Cancer, (1993) 19/1 (43-54).
ISSN: 0163-5581 CODEN: NUCADQ
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
037 Drug Literature Index
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Dietary fiber is believed to decrease the incidence of colorectal ***cancer*** , but not all types of fiber are equally protective. Dietary fibers may be divided broadly into insoluble and soluble fibers, and there is evidence from animal experiments that the latter not only fails to protect against colorectal ***cancer*** but may enhance its development. Adsorption of carcinogens to insoluble dietary fiber in the intestinal tract is one of the mechanisms by which dietary fiber is believed to protect against colorectal ***cancer*** . In previous in vitro experiments, we showed that the hydrophobic carcinogen 1,8-dinitropyrene (DNP) adsorbs to insoluble plant cell wall components (insoluble dietary fibers). Soluble polysaccharides (pectic polysaccharides) extracted from the walls of parenchyma cells of dicotyledonous plants were found to maintain DNP in aqueous solutions and decrease its adsorption to insoluble wall components. In the present study, we examined a commercial preparation of pectin and seven other soluble-fiber polysaccharides with diverse structures for their effects on the distribution of DNP. Many of these are used as emulsifiers and stabilizers in the food industry. They all maintained DNP in aqueous solution and decreased its adsorption to .alpha.- ***cellulose*** , which we used as an example of an insoluble dietary fiber. Gum arabic was the most effective and .kappa.-carrageenan the least. The capacity of the polysaccharides to act as emulsifiers and stabilizers may explain their effects on DNP distribution. The monosaccharide glucose and the disaccharide cellobiose had no effect on the distribution of DNP. These results indicate three possible mechanisms by which soluble-fiber polysaccharides may enhance the development of colorectal ***cancer*** . First, because they reduce the ability of insoluble dietary fibers to adsorb hydrophobic carcinogens, more carcinogens may enter the colon maintained in solution than adsorbed onto insoluble fibers. Second, if soluble-fiber polysaccharides are maintaining hydrophobic carcinogens in solution and these polysaccharides are degraded by bacterial enzymes in the colon, then the carcinogens may come out of solution and be deposited onto the mucosal surface of the colon. Third, soluble-fiber polysaccharides may cross the intestinal epithelium and carry with them carcinogens maintained in solution. These studies have important consequences for nutrition, because soluble-fiber polysaccharides represent a common component of foods.

L16 ANSWER 32 OF 87 MEDLINE
ACCESSION NUMBER: 93100090 MEDLINE
DOCUMENT NUMBER: 93100090
TITLE: Effect of ***tumor*** burden and route of administration on the immunotherapeutic properties of polyinosinic-polycytidylic acid stabilized with poly-L-lysine in carboxymethyl ***cellulose*** [Poly(I,C)-LC].
AUTHOR: Black P L; Hartmann D; Pennington R; Phillips H; Schneider M; Tribble H R; Talmadge J E
CORPORATE SOURCE: Division of Antiviral Drug Products, U.S. Food and Drug Administration, Rockville, MD 20857..
CONTRACT NUMBER: N01-23910
SOURCE: INTERNATIONAL JOURNAL OF IMMUNOPHARMACOLOGY, (1992 Nov) 14 (8) 1341-53.
Journal code: GRI. ISSN: 0192-0561.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199303
AB We examined the immunomodulatory and therapeutic activities of poly(I,C)-LC. Mice received a subcutaneous (s.c.) injection of sufficient numbers of MBL-2 lymphoma cells to produce in 1 week either a high or low ***tumor*** burden. A week after ***tumor*** cell injection, poly(I,C)-LC treatment was initiated; the agent was administered intraperitoneally (i.p.) at 5 mg/kg twice a week or at 2.5 or 0.5 mg/kg

Talmadge J E
CONTRACT NUMBER: NO1-23910
SOURCE: CANCER RESEARCH, (1986 Mar) 46 (3) 1331-8.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198605
AB In this paper, we describe a study of the therapeutic parameters (dose and schedule) and immunomodulatory activity (macrophage, natural killer cell, and T-cell number and function) of polyinosinic-polycytidylic acid admixed with poly-L-lysine and solubilized with carboxymethyl ***cellulose*** [poly(I,C)-LC] in the treatment of MBL-2 ***tumor*** ascites. ***Tumor*** -bearing mice received an optimal therapeutic protocol [100 micrograms poly(I,C)-LC administered twice a wk], a maximum tolerated dose [50 micrograms poly(I,C)-LC administered daily], or the optimal immunomodulatory protocol for normal mice [10 micrograms poly(I,C)-LC administered daily]. The percentage of ***tumor*** -associated macrophages and their cytotoxic activity correlated with host survival. In addition, splenic T-cell activity correlated with host survival, and splenic natural killer cell function had a near significant correlation with host survival. These results indicate that the optimal dose and schedule of poly(I,C)-LC for immunomodulation in ***tumor*** -bearing animals are also the optimal therapeutic protocol but have less toxicity than the maximum tolerated dose.

L16 ANSWER 38 OF 87 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 86187539 MEDLINE
DOCUMENT NUMBER: 86187539
TITLE: Arterial chemoembolization with cisplatin microcapsules.
AUTHOR: Okamoto Y; Konno A; Togawa K; Kato T; Tamakawa Y; Amano Y
SOURCE: BRITISH JOURNAL OF CANCER, (1986 Mar) 53 (3) 369-75.
Journal code: AV4. ISSN: 0007-0920.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198608
AB Cisplatin (CDDP) was microcapsulated with ***ethylcellulose*** . Sustained release of CDDP from the microcapsule, particularly non-protein-bound CDDP, which should have antitumour activity, was demonstrated by an in vitro test. Using a bioassay, it was proven that the biological activity of CDDP was not affected by the microencapsulation process. When CDDP-mc were infused into the maxillary artery of patients with carcinoma of the maxillary sinus or oral cavity, the CDDP level in the circulating blood was significantly lower than that of the patients given non-encapsulated CDDP intravenously. However, a significantly higher CDDP concentration in ***tumour*** tissue was found in patients treated with CDDP-mc. These results suggest that selective arterial infusion of CDDP-mc could exert intensive topical antitumour effects on lesions through microinfarction effects, and prolonged drug release, with minimum systemic side effects.

L16 ANSWER 39 OF 87 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1986:221752 BIOSIS
DOCUMENT NUMBER: BA81:113052
TITLE: EFFECT OF MIXTURES OF DIETARY FIBERS ON THE ENZYME ACTIVITY OF THE RAT CECAL MICROFLORA.
AUTHOR(S): WISE A; MALLETT A K; ROWLAND I R
CORPORATE SOURCE: SCH. OF NUTRITIONAL SCIENCE, ROBERT GORDON'S INST. OF TECHNOLOGY, ABERDEEN, AB9 2PG, GREAT BRITAIN.
SOURCE: TOXICOLOGY, (1986) 38 (2), 241-248.
CODEN: TXCYAC. ISSN: 0300-483X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The enzyme activity of the caecal microflora from weanling rats was determined after feeding 1 of 3 basal diets (purified fibre-free; purified plus ***cellulose*** ; and stock), with or without additional dietary fibre (pectin, i-carrageenan or ***carboxymethylcellulose*** 5% w/w). The wet weight of caecal contents and total bacterial numbers were similar for the purified fibre-free and purified plus ***cellulose*** diets, yet were significantly higher in animals fed the stock diet. Pectin supplementation of the basal diets had no effect of caecal bacterial numbers, but significantly increased total nitrate reductase activity per

caecum except when added to stock diet. Carrageenan decreased caecal bacterial numbers and most enzyme activities with both purified diets, and to a lesser extent with the stock diet. ***Carboxymethylcellulose*** increased bacterial numbers and enzyme activities, particularly .beta.-glucosidase and nitrate reductase when added to the purified diet but not when added to either the purified diet plus ***cellulose*** or the stock diet. The results demonstrate that the effects of dietary fibre components on the rat caecal microflora are dependent upon the initial fibre content of the diet base.

L16 ANSWER 40 OF 87 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 86027914 MEDLINE
DOCUMENT NUMBER: 86027914
TITLE: Phase II trial of a complex polyriboinosinic-polyribocytidylic acid with poly-L-lysine and carboxymethyl ***cellulose*** in the treatment of children with acute leukemia and neuroblastoma: a report from the Children's ***Cancer*** Study Group.
AUTHOR: Lampkin B C; Levine A S; Levy H; Krivit W; Hammond D
CONTRACT NUMBER: CA 13539 (NCI)
CA 02971 (NCI)
CA 10382 (NCI)
+
SOURCE: CANCER RESEARCH, (1985 Nov) 45 (11 Pt 2) 5904-9.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198602
AB Therapeutic efficacy and toxicity were evaluated in 28 children with acute lymphoblastic leukemia, in ten with acute nonlymphoblastic leukemia (ANLL), and in 13 with metastatic neuroblastoma. All were refractory to standard chemotherapeutic agents and 25 were refractory to an investigational drug. The initial dose was 12 mg/m2/day and was based on an established maximal dose tolerated in adults. This dose was found to be intolerable in 5 of 5 children with leukemia. Similarly an initial dose of 9 mg/m2/day was intolerable in 4 of 5 patients with leukemia. The starting dose in the next 28 children with leukemia or neuroblastoma was 3 mg/m2. This drug was gradually increased to the highest tolerated dose by 3-mg/m2 increments. Fifteen children with acute lymphoblastic leukemia, 3 children with ANLL, and 2 children with neuroblastoma received the drug daily. Seven patients with ANLL and 7 patients with neuroblastoma received the drug biweekly. Seventeen patients with acute lymphoblastic leukemia, 6 patients with ANLL, and 5 patients with neuroblastoma had an adequate trial of the drug. An adequate trial was defined as a minimum of 5 weeks of therapy unless progressive disease developed. Side effects of the drug were striking and included fever, hypotension, myalgia, bone pain, arthralgia, arthritis, abdominal pain, liver toxicity, thrombocytopenia, and neurotoxicity. No complete remission occurred although interferon levels above 100 units/ml were induced in nearly 50% of the patients.

L16 ANSWER 41 OF 87 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1985:178857 CAPLUS
DOCUMENT NUMBER: 102:178857
TITLE: Immunomodulatory effects in mice of polyinosinic-polycytidylic acid complexed with poly-L-lysine and ***carboxymethylcellulose***
AUTHOR(S): Talmadge, James E.; Adams, Joanne; Phillips, Hamblin; Collins, Margaret; Lenz, Barbara; Schneider, Mark; Schlick, Erich; Ruffmann, Ralf; Wiltrout, Robert H.; Chirigos, Michael A.
CORPORATE SOURCE: Preclin. Screening Lab., Program Resour. Inc., Frederick, MD, 21701, USA
SOURCE: Cancer Res. (1985), 45(3), 1058-65
CODEN: CNREA8; ISSN: 0008-5472
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The immunomodulatory characteristics of poly(I,C)-LC, a synthetic, double-stranded nucleic acid polymer (polyinosinic-polycytidylic acid) that is complexed with poly-L-lysine and solubilized by the addn. of carboxymethyl- ***cellulose*** are described. Both in vitro and in vivo, stimulation of macrophage cytotoxicity and augmentation of natural killer-cell activity by poly(I,C)-LC were obsd. This immunomodulator also increased the allogenic mixed-lymphocyte response, without any blastogenic

(FILE 'HOME' ENTERED AT 14:20:40 ON 18 APR 2001)

FILE 'MEDLINE, EMBASE, BIOSIS, CAPLUS' ENTERED AT 14:20:49 ON 18 APR 2001

L1	312257	S	CELLULOSE
L2	2686481	S	CANCER OR TUMOR OR TUMOUR OR CARCINOGENESIS
L3	5482	S	L1 AND L2
L4	875	S	NON-FERMENTABLE
L5	9	S	L3 AND L4
L6	3	DUP REM	L5 (6 DUPLICATES REMOVED)
L7	14235	S	METHYLCELLULOSE
L8	3065	S	ETHYLCELLULOSE
L9	8858	S	CARBOXYMETHYLCELLULOSE
L10	1790	S	HYDROXYPROPYL-METHYLCELLULOSE
L11	46	S	L3 AND L7
L12	25	S	L3 AND L8
L13	44	S	L3 AND L9
L14	6	S	L3 AND L10
L15	107	S	L11 OR L12 OR L13 OR L14
L16	87	DUP REM	L15 (20 DUPLICATES REMOVED)
L17	563210	S	DIET
L18	397569	S	DIETARY
L19	754464	S	L17 OR L18
L20	587	S	L3 AND L19
L21	2594780	S	PREVENT? OR INCIDENCE
L22	278	S	L20 AND L21
L23	4	S	L22 AND (L7 OR L8 OR L9 OR L10)
L24	4	DUP REM	L23 (0 DUPLICATES REMOVED)
L25	16	S	L1 AND L19 AND L21 AND (L7 OR L8 OR L9 OR L10)
L26	15	DUP REM	L25 (1 DUPLICATE REMOVED)
L27	607327	S	BREAST OR MAMMARY OR COLORECTAL
L28	76	S	L22 AND L27
L29	45	DUP REM	L28 (31 DUPLICATES REMOVED)